

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1836.—Vol. XL.

LONDON, SATURDAY, OCTOBER 29, 1870.

(WITH SUPPLEMENT) {PRICE FIVEPENCE.
PER ANNUM, BY POST, £1 4s.

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(ESTABLISHED 1842.)

HOLDERS of mining shares DIFFICULT OF SALE in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

ROCHE CONSOLS.
Mr. CROFTS strongly recommends the purchase of these shares. Most important discoveries are being made, and the mine will undoubtedly become a great mine. The mine is situated at the head of the celebrated Goss Moors, from which millions worth of tin have been raised. The district has produced some of the richest tin mines in Cornwall. The shares at present can be secured for 15s. Every description of shares BOUGHT and SOLD at NET prices.
SPECIAL BUSINESS IN GREAT ROYALTY shares.
Bankers: Metropolitan Bank.

MR. W. H. BUMPUS, STOCK AND SHAREDEALER,
44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the following SHARES, free of commission:—
10 Anglo-Australian, £1 paid, 2s.
10 Australian Uni., 10s 9d.
10 Asheton, £4 18s. 9d.
10 Anglo-Brazilian, 11s. paid, 2s. 3d.
25 Bradstair Consols.
15 British Consols, £2½.
20 Bradford, £2½.
20 Chontales, 13s. 9d.
20 Casnyon.
10 Chiverton Moor, £3½.
10 Caldbeck Fells, 25s 9d.
10 Drake Walls, 22s. 3d.
10 Don Pedro, £2 16s. 9d.
10 East Caradon, £2½.
5 East Lovell, £24½.
50 Eclipses, 13s. 9d.
75 Frontino, 9s. 6d.
15 Frank Mills, £2½.
30 Great Western.
15 Great Laxey, £18½.
40 Gen. Brazilian, 14s.
25 Great No. Laxey, 9s.
3 Maes-y-Safn.
15 Marke Valley, £6 13 9d.
20 New Lovell.
20 North Crofty.
50 Pacific, 33s. 9d.
20 Plymouth, 36s. 6d.
20 Port Phillip, 20s.
25 Pen'Alit, 31s.
50 Pestarena, 11s. 6d.
20 Sweetland Creek, £3.
15 So. Condurow, £2½.
10 Tankerville, £14½.
50 Taquaril, 39s. prem.
25 Tan-yr-Alit, £2½.
30 Van Consols, £2.
50 West Godolphn, 18s 9d.
3 Wt. Chiverton, £54.
25 West Pant-y-Go, 18s.
50 West Maria, 33s.
10 West Trevaskis, £2½.
50 Wheel Crebor, 11s 6d.
50 Yudanamuta, 19s 9d.

W. H. B. transacts business in every description of shares at the best market prices, and free of commission.
Daily Price-List free on application.
Bankers: The Metropolitan Bank (Limited), Cornhill, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER,
48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. Y. CHRISTIAN, STOCK AND SHAREDEALER,
11, ROYAL EXCHANGE, E.C.
Bankers: Bank of England.
Mr. Y. CHRISTIAN will forward upon application full particulars of the PORTER TIT MINE, situated in St. Agnes, Cornwall, which is on the eve of returning good dividends. Mr. CHRISTIAN recommends the shares as confidently as did Lord Levent, when he advised the purchase of them at £4 per share. That mine has paid four half-yearly dividends, and the shares are now worth £1 to £12.

MR. T. A. MUNDY, STOCK AND SHAREDEALER,
38, BISHOPSGATE STREET WITHIN, E.C.
Bankers: City Bank.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER,
19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MR. THOMAS THOMPSON, JUN., STOCK AND SHAREDEALER AND MINE AGENT,
5, WHITEHALL, S.W.

MESSRS. W. DUNN AND CO., STOCK AND SHARE-DEALERS,
3 AND 4, GREAT WINCHESTER STREET BUILDINGS, LONDON, E.C.
Bankers: National Provincial Bank of England.

FOR SALE, at prices affixed:—
Asheton, £4 12s. 6d.
Bradford, £2 2s. 6d.
Cardigan Bay, £3 5s.
Cefn Consols, £3 10s.
Cefn Brynno, £3 5s.
Chiv. Moor, £3 6s 6d.
Chiv. Valley, £2 10s.
Devon Consols, £10½.
Don Pedro, £3 13s 9d.
Drake Walls, £1 3s.
East Lovell, £24½.
East Seton, 15s.
Frank Mills, £1 19s.
Gt. Royalton, £1 15s.
Great Vor, £2 5s. 6d.
Gt. So. Chiv., 7s. 6d.
Llanarmon, £3 5s.
Mineral Bottom, £2.
New Lovell, £1 14s.
No. Wt. Crofty, £1 17s.
No. Pacific, £1 13s. 6d.
Pen-Alit, £1 12s.
Prince of Wales, 11s.
Queen, £1 18s.
Roche Consols, 14s.
Rosewall Hill, £1 4s 6d.
So. Condurow, £3 5s.
South Darren, £1 4s.
Sweetland Cr., £2 16s.
Tankerville, £14.
Tan-yr-Alit, £2 1s. 6d.
Taquaril, £1 17s. 6d.
Terras, £1 10s.
Van Consols, £1 18s 9d.
West Esgrail Lie, £2 5s.
West Maria, £1 12s.
West Pant-y-Go, 17s 9d.
West St. Ives, 6s.
West Tanker, £2 12 9d.
Wheel Agar, £1 15s.
W. Kitty (St. Agnes), £8 10s.
W. Mary Ann, £8 15s.

ANDERSON AND CO., STOCK AND SHAREDEALERS,
BRITISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES,
85, GRACECHURCH STREET, LONDON, E.C.
The TERRAS TIN MINE is an extraordinary rich tin property. We have examined, and are convinced of its value. These shares should be bought at once; have 50 or any less portion for sale, at £2 each, and we believe they will go considerable price. Asplendid improvement has just taken place; the new shaft is worth from £50 to £60 per fathom. The company is limited; we admit only limited liability companies, cautioning investors to avoid the Costly System as they would a serpent.

Especially invite the attention of investors and capitalists to the GEORGE BUDGE COMPANY, advertised in the Journal of Sept. 10. The property is a bona one, having the Van lode running entirely through it, with levels driven, the out, and raising ore worth £18 to £20 per ton, a further improvement being expected; and it is likely to be the great centre of attraction in the Van district. From the numerous applications for shares from all parts of the country it will be a great success. Every investor desirous of making money should buy for shares. A prospectus, plans, and forms of application can be had at office.

WANTED TO BUY—ABERDAUNANT LEAD MINE shares. State number and price.
DEAN and Co., 85, Gracechurch Street, London.

MR. WM. MARLBOROUGH, 29, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Established 16 years), has FOR SALE the following SHARES at net prices:—
Asheton, £2½.
Anglo-Argent., 15s.
Australian Uni., 10s 3d.
Arivaca, £2½ pm.
Caldbeck Fells, 21s. 3d.
Chontales, 13s. 9d.
Chiverton, 22s. 9d.
Chiv. Moor, £2 14s 6d.
Chiverton Val., £2½.
Cefn Consols, £2.
Cardigan Bay, £2½.
Devon Consols, £10½.
Don Pedro, 42s. pm.
Drake Walls, 22s.
Ding Wall, £2½.
Dolcoath, £12½.
Eberhardt, £2 pm.
East Lovell, £24½.
10 East Caradon, £2½.
10 East Bassett, £3½.
20 East Grenville, 40s.
50 Frontino, 7s. 9d.
20 Frank Mills, 39s. 6d.
50 Fortuna, 54s.
10 Great Laxey, £17½.
50 Great Retalack.
10 Gwydyr Park, 10s.
20 Gt. Stb. Chiverton, 9s.
30 Lovell Cons., 6s. 6d.
5 Llanarmon, £3½.
100 Mining Assoc., 5s. 6d.
20 North Crofty, 36s. 9d.
100 Port Phillip, £27½.
50 Pestarena, 11s. 9d.
20 Pen'Alit, 31s. 9d.
20 Penrhyn, 44s. 9d.
50 Prince of Wales, 10s 6d.
20 Pacific, 31s. 6d.
50 Queen, 37s. 6d.
50 Rhydalgo, £2½.
20 So. Aurora, 9s. pm.
20 South Darren, 24s.
10 So. Condurow, £2½.
20 Sweetland, £2 17s. 6d.
50 Scottish Austral.
40 Terras Tin, 24s.
5 Tankerville, £14 6s 9d.
50 Taquaril, 36s. 9d. pm.
20 Trevaskis.
20 Van Consols, £1 19s.
2 Van, £25½.
5 W. Kitty (St. Agnes), £8 7s. 6d.
3 Wt. Chiverton, £53½.
20 Wt. Great Work, 25s.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 11 years), is a SELLER at net prices of:—
East Grenville, £2½; 2 Miners, £16½; 3 Devon Great Consols; 6 East set, £24; 45 Trevaskis; 120 West Pant-y-Go, 17s.; 50 Gwydyr Park; 10 North Crofty, £2; 40 Parys Mountain, £2; 3 Providence, £3; 75 West Esgrail; 4s.; 50 Penrhyn, £2½; 16 Bwlch Consols, £2½; 2 South Frances, £3½; 50 and Chiverton; 75 Plynlimmon; 85 Redmoor, 7s. 6d.; 100 Dale, 10s. 6d.; 50 Chiverton; 75 Terras; 2 Wheel Seton, £29½; 5 Spearman Moor, £14½; 100 and Chiverton; 60 Wheal Grenville, 38s.; 10 Polbreon; 100 Taquaril, 39s.; 120 Anglo-Brazilian; 40 Fortuna, £2 16s. 9d.; 300 Eclipses; 200 Argentine, 15s. 9d.

TANKERVILLE, WEST TANKERVILLE, AND WELSH LEAD MINES.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST SYNOPSIS OF CORNISH AND DEVON MINES," &c., of Friday, Oct. 28, No. 504, price 6d. each copy, forwarded on application, contains information on the following mines:—
Tankerville. West Caradon. South Carn Brea.
West Tankerville. East Wheal Lovell. New Wheal Lovell.
Van. West Wheal Frances. West Great Work.
North Wheal Crofty. Rosewall Hill and Ransom United. South Great Work.
Special Report on West Caradon, and Remarks on the Metal Market.

MR. PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON, E.C.
Bankers: The Alliance Bank, and Union Bank of London.

THE WAR, AND PRICE OF STOCKS AND SHARES.
Read the "LONDON DAILY RECORD—STOCK AND SHARE LIST," as to what to buy at once for investment.
The "London Daily Record" is published by P. WATSON, Stock and Share Dealer, 79, Old Broad-street, E.C., every evening, and forwarded by post to subscribers. Annual subscription, £1 1s.; by post, £2 2s.

MR. EDWARD COOKE, STOCK AND MINING SHAREDEALER, 76, OLD BROAD STREET
LONDON, E.C.
Bankers: Alliance Bank.

MR. W. H. CULLE, No. 42, CORNHILL, LONDON, E.C.
Daily price-list on application.

MR. C. A. POWELL, BRITISH AND FOREIGN STOCK AND SHAREDEALER, No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.

Every description of negotiable security dealt in at current market prices. BUYER of North Trekerby and Prince of Wales. SPECIAL BUSINESS in Tankerville, Frontino, Taquaril, Gwydyr Park, Great Royalton, Pacific, and Sweetland.
Price List on application.
Bankers: City Bank, Finch-lane, E.C.

MR. W. TREGELLAS, 122, BISHOPSGATE STREET WITHIN, E.C., has much pleasure in calling the attention of his friends to the reports just received from the TAQUARIL GOLD MINE, which far more than confirms all he has led them to expect. It is clear from the statement of Capt. Thomas Treloar that this mine is the richest in Brazil, and must in a very short time pay large dividends. The shares are cheap and must rise to double their present price.
W. T. is always prepared to buy and sell the shares at close market prices, and is in a better position than anyone in this country to give sound advice to his clients.

MR. J. B. HAWKES, STOCK AND SHAREDEALER,
3, CROWN COURT, THREADNEEDLE STREET, E.C., has FOR SALE the following SHARES:—
50 W. Tankerville, £2 10 3d.
2 Wheal Seton, £3½.
100 Rossa Grande, 5s. 6d.
5 St. John del Rey, £23½.
50 Yudanamuta, 18s 9d.
5 Kitty (Lefant), £11½.
20 Wheal Agar, 38s. 6d.
20 Tan-yr-Alit, 44s.
3 West Frances, £23½.
2 South Frances, £21½.
5 W. Mary Ann, £9½.
10 Wheal Buller, £2½.
20 East Grenville, £2 6s.
5 Gt. Laxey, £18½.
20 Gt. No. Laxey, 11s.
1 Wb. Bassett, £71.
50 Stb. Great Work, 6s.
1 Herodsfoot, £44.

MR. THOMAS ROSEWARNE, SHAREDEALER,
81, OLD BROAD STREET, LONDON, E.C.
WANTED TO BUY, at market prices, the following SHARES:—
70 Bedford Consols.
50 Bedford United.
3 Devon Consols.
100 Drake Walls.
15 East Lovell.
75 Hington Down.
100 Okel Tor.
20 Tankerville.
10 Tincroft.
35 Vron.
100 Prince of Wales.

BEDFORD CONSOLS.—I called attention to this mine some few weeks since, when the shares were nominally 20s. to 30s. If the new lode continues as per assay, the shares are worth £20. I leave London this week to inspect the mine, with other competent agents who will meet me there, when it will be fairly tested. I also hope to inspect many other mines in Devon and Cornwall while I am there, and upon my return shall be glad to give my clients and others seeking information advice how to act, according as my experience may dictate. Money advanced to any extent upon good marketable mining shares.
Bankers: Bank of England. Office hours Ten to Four.

MR. F. W. MANSELL, STOCK AND SHAREDEALER,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C., having been connected with the Mining Market for the above period, and constantly visiting the mines of Cornwall and Wales, is at all times in a position to give reliable advice in the purchase and sale of shares.
Daily List of closing prices in British and Foreign mines published every evening, and forwarded to correspondents (free).
References exchanged. Bankers: London Joint-Stock Bank.

MR. JOHN B. REYNOLDS, OF 70 AND 71, BISHOPSGATE STREET WITHIN, LONDON, E.C., TRANSACTS BUSINESS in British and Foreign Stocks of every description, Railways, Foreign Bonds, Colonial Securities, &c.
British and Foreign Mine Shares are negotiated by him for cash. Net prices are charged on all transactions, and no commission is ever payable. Transfer of Stocks of any description, and to any amount, can be exchanged at any London bankers for the purchase-money, and no delay that can possibly be avoided is ever suffered in the delivery of Stock.
Mr. REYNOLDS undertakes the inspection of mines by first-class authorities, and, through his correspondence, is enabled to get reliable information.
Established in London Thirteen Years.
Bankers during the whole period: City Bank, Threadneedle-street, London.

SILK AND CO., STOCK AND SHARE BROKERS,
CHIEF OFFICES: 12, REGENT STREET, W.
CITY OFFICES: 36, MARK LANE, E.C.

Every description of Stocks and Shares dealt in at the closest market value for cash only.
CWMYBOL, MORRIS, CLOW—Shares in the above slate quarries are recommended as safe and profitable investments. FRANK LEMMER, Secretary.

MR. HENRY MANSELL, STOCK AND SHAREDEALER,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, has the following SHARES FOR SALE, for cash or account, free of commission:—
50 Taquaril, 39s.
40 East Caradon, £4½.
100 Harewood Cons., 6s.
20 Tankerville, £14 3s 9d.
5 Llanarmon, £3½.
20 Gwydyr Park, 10s.
20 Gt. Stb. Chiverton, 9s.
30 Lovell Cons., 6s. 6d.
5 Llanarmon, £3½.
100 Mining Assoc., 5s. 6d.
20 North Crofty, 36s. 9d.
100 Port Phillip, £27½.
50 Pestarena, 11s. 9d.
20 Pen'Alit, 31s. 9d.
20 Penrhyn, 44s. 9d.
50 Prince of Wales, 10s 6d.
60 W. Pant-y-Go, 18s 9d.
25 Prince of Wales, 12s 6d.
10 So. Condurow, £2½.
100 Florence and Tonkin, call paid.
20 Tankerville, £23½.
20 Drake Walls, 21s. 9d.
20 So. Herodsfoot, offer 100.
20 Great Vor, £7 10s.
20 North Trekerby, 3s.
20 Cefn Consols.
20 Great Chiverton, offer 100.
BUYER of 500 Taquaril, or any part of same, at 38s. 3d. premium.
TERRAS TIN MINE (Limited).—Mr. HENRY MANSELL strongly advises the purchase of these shares at once. The Blake's stone-crusher (just purchased) will soon be at work, and large sales of tin will be the result, the amount of tinstone on the mine being almost inexhaustible. These are positively the cheapest shares now being offered to the public.
TAQUARIL, SETON, VAN CONSOLS, and WEST JEWELL shares should also be bought for a great rise from present prices.
Bankers: London Joint-Stock Bank.

THE CITY EXCHANGE MINING AND INVESTMENT OFFICES, 32, NEW BROAD STREET, E.C.
ALFRED FISHER, MANAGER.
GEORGE MINE is the next valuable mine in Wales. Capitalists, investors, will do well to apply for a prospectus, which will be forwarded free on application. Also a pamphlet of the TERRAS TIN. An important discovery has just taken place in this mine. A new lode has been cut, worth £60 per fm., in addition to their ordinary yield of tin. Doubtless this will be the A 1 Dividend Tin Mine in Cornwall. Investors will do well to apply at once for shares at 32s. 6d. each. We have only a few left. Apply instantly.
A. FISHER and Co., 32, New Broad Street, London.

MR. CHARLES THOMAS, MINING AGENT, AND GENERAL SHAREDEALER,
3, GREAT ST. HELEN'S, LONDON, E.C.

MR. JOHN GIBBS, STOCK AND SHAREDEALER,
51, THREADNEEDLE STREET, LONDON, E.C.
All kinds of shares bought and sold at closest market prices.
Bankers: London and County Bank.

MR. T. E. W. THOMAS, STOCK AND SHAREDEALER,
3, GREAT WINCHESTER STREET BUILDINGS, E.C.
Business operations in Mining Shares effected at close market rates.

New edition, 1870, price 6d.,
SELF HELP TO PATENT LAW;
Also, price 1s.,
COLONIAL AND FOREIGN PATENT LAWS.
By GEORGE DAVIES, C.E.
Published at the Office for Patents, 4, St. Ann's-square, Manchester, by GEORGE DAVIES, C.E. (late John Davies and Son).
Established 1835.

MESSRS. G. LAVINGTON AND A. PENNINGTON,
44, THREADNEEDLE STREET, E.C., STOCK AND SHAREDEALERS, have SPECIAL BUSINESS in the undermentioned:—
Pacific Gold. Tankerville. Anglo-Brazilian.
Sweetland Creek. Marke Valley. Taquaril.
Tincroft.

TO INVESTORS.—NOW READY.
LAVINGTON AND PENNINGTON'S "MONTHLY RECORD OF INVESTMENTS," containing an exhaustive Review of the British and Foreign Stock and Share and Money Markets, &c., with an enumeration of safe investments, paying from 10 to 20 per cent. Price 6d. per copy, or 5s. annually.
G. LAVINGTON and A. PENNINGTON, 44, Threadneedle-street, London, E.C.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 AND 225, GRESHAM HOUSE,
OLD BROAD STREET, LONDON, E.C.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.
Bankers: City Bank, Finch-lane, E.C.

MR. WILLIAM MICHELL, 42, CORNHILL, LONDON, E.C.
Dealer in British Mines, Stocks, Shares, &c.

MESSRS. J. HUME AND CO., STOCK AND SHARE BROKERS, 74, OLD BROAD STREET, LONDON, E.C.

PRICE LIST:—
50 Conroy Lead, £3½ pm.
20 New Lovell, £2½.
20 So. Condurow, £2½.
10 East Lovell, £23½.
20 Great Vor, £7½.
20 East Caradon, £5.
10 Marke Valley, £7.
50 Prince of Wales, 12s 6d.
20 Tankerville, £14½.
50 West Tanker, £2 18 9d.
5 Herodsfoot, £44.
10 Asheton, £2½.
50 Casnyon, 30s.
20 Tan-yr-Alit, £3.
10 Van, £61.
50 Van Consols, £2.
5 Cook's Kitchen, £18½.
5 Tincroft, £46.
20 East Grenville.
20 Grenville.
20 So. Aurora, £2½ pm.
50 Crebor, 14s.
50 West Maria, £13½.
5 Seton, £42½.
5 Wheal Jane.
5 Wt. Chiverton, £54½.
1 West Seton.
5 Kitty (St. Ag.), £28½.
5 Trumpet, £25.
50 Taquaril, 37s. 6d. pm.
20 Don Pedro, £2½ pm.
20 Eberhardt, £12½.
50 Plynlimmon, 37s. 6d.
50 West Maria, £13½.

All orders executed with promptitude at closest prices, and advised by post or telegram.
A daily Price List sent on application.
The "Investment Record and Mining Review" for October is now ready. Price 6d.; annually, 5s.
Bankers: The London Joint-Stock Bank.

NOTICE.
FOR INFORMATION OF PRICES obtainable for the following Mines, or at what they may be procured, apply to the undersigned, who also effects Purchases and Sales (when practicable) in every description of shares at net prices. It is advantageous to those applying to state the number.
Cook's Kitchen. Tincroft. Wh. Mary Ann.
Cargill. Margaret. Wheal Agar.
Devon Consols. Marke Valley. Van Consols. Wheal Buller.
Dolcoath. North Crofty. West Frances. Wheal Grenville.
Drake Walls. New Lovell. West Chiverton. Wheal Uny.
East Bassett. Penhalis. West Seton.
East Grenville. Providence. West Maria.
Frank Mills. Spearman Moor. Wh. Kitty (St. Agnes). Don Pedro.
Great Laxey. So. Condurow. Agnes). Sweetland Crk.
Great Vor. South Frances. Wheal Seton. Pacific.
Grenville. Tankerville. Wheal Bassett. Taquaril, &c.
JAMES BRENCHLEY, Sharedealer, 32, Nicholas-lane, Lombard-street, London.
Established in 1854.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER,
No. 30, GREAT ST. HELEN'S, LONDON, E.C., transacts business at net prices in every description of security.
SPECIAL BUSINESS in Frank Mills, Great Western, Caldbeck Fells, East Seton, West Tankerville, Wheal Agar, and South Condurow shares.
"Seventh Edition of 'How to Invest,' &c. Post free for seven stamps.

HOOE AND CO., STOCK AND SHAREDEALERS,
LIFE, FIRE, AND MARINE INSURANCE AGENTS,
26, MARTIN'S LANE, CANNON STREET, LONDON, E.C.
We recommend investment in the ABERDAUNANT LEAD MINING COMPANY (LIMITED), the heavy rain in the district during the past few days having allowed dressing operations to be recommenced in the GEORGE BUDGE COMPANY, Limited (both in the Llanidloes district, and on the Van lode); also in the TERRAS TIN MINING COMPANY, Limited (in Cornwall). These shares are certain to have a great rise in price shortly, in consequence of the recent discoveries. The Terras pamphlet free on application. We are just advised of an important discovery in this mine, and can offer our few remaining shares at 32s. 6d. If applied for at once, before the shares are withdrawn from our hands. At the rate of One Guinea per annum, we give investors information on legitimate mining properties in the United Kingdom.
A VALUABLE PATENT TO BE SOLD. Particulars at our office.
Orders and telegrams receive prompt attention.
HOOE and Co., 26, Martin's-lane, Cannon-street, London, E.C.

BARTLETT AND CHAPMAN, STOCK AND SHARE DEALERS, 36, CORNHILL, LONDON, E.C.
The INVESTMENT CIRCULAR, published on the first Wednesday in each month. Subscription, 5s. a year, including postage; a single copy, 6d.
The HANDY-BOOK FOR INVESTORS, comprising a sketch of the Rise, Progress, and Present Character of every species of Investment, British, Colonial, and Foreign; including an estimate of their comparative safety and profit. Bound in cloth, 10s. 6d.
BRITISH MINES AND MINING, comprising a comparison of Mining with other Investments; a description of the Mining Districts of the United Kingdom, and a detailed account of the Tin, Copper, Lead, and other Mines in Cornwall, Devon, Salop, Wales, and the Isle of Man; with a complete Glossary of Mining Terms. Bound in cloth, 2s. 6d.
MONTHLY LIST OF BRITISH AND COLONIAL INVESTMENTS, showing the rate of interest returned in marketable stocks and shares, for the guidance of investors. 1s., post free.
Cheques to be crossed London and Westminster or Alliance Bank.

THE SUCCESS ATTENDING THE DEVELOPMENT OF THE WEST JEWELL TIN MINE is such that Mr. MATTHEW GREENE strongly ADVISES the IMMEDIATE PURCHASE OF SHARES. As an earnest of the future that is before this mine, Mr. GREENE would call the attention of intending purchasers to Captain Mayo's report in another column, wherein he states that one of the pitches, "let at 7s., is now worth £40 to the fathom. Those who can secure these shares at their present price may look forward to a great rise in the value. The shares are fully paid. Every information to investors or their brokers on application.
Mr. MATTHEW GREENE, Mining Offices, Pinner's Hall, Old Broad-street, E.C.
Bankers: Bank of England, and Messrs. Tweedy, Williams, and Co., Cornwall.

MESSRS. E. BREWIS AND CO., STOCK AND SHARE DEALERS, 19, BISHOPSGATE STREET WITHIN, LONDON, E.C.
(Opposite the National Provincial Bank of England.)
Telegrams promptly attended to.
Bankers: The Alliance Bank, London, E.C.

CAPITAL £24,000, IN 2400 SHARES OF £10 EACH.

OFFICES, - 7, POST OFFICE COURT, CARLISLE.

[For remainder of Original Correspondence see this day's Supplement.]

CHEMICALS AND MINERALS.—J. Berger Spence and Co., Chester, Oct. 27 : Soda : Cream slightly easier at 12*l*. 10*s*. for 60 per cent white at 18*l*. to 17*l*. 7*d*. 6*d*. Soda cream well enquired for at 24*s*. 2*d*. 6*d*. soda ash sells better at 13*l*. 10*s*. to 13*l*. 9*s*. per degree ; bi-carbonate at 9*l*. 14*s*. 15*s*. for refined ; saltcake, 3*s*. ; sulphate of soda, 3*s*. Nitrate at 9*l*. There vanced somewhat, and leaves off at 16*l*. 10*s*. to 15*l*. 15*s*. Potash : At 9*l*. 10*s*. little business transacted in muriates, prices ruling as follows : To 1*s*. 10*d*. ; Prussic acid, f.o.b. Prussiate yellow, 11*l*. 6*d*. ; red, 1*s*. 9*d*. ; black, 1*s*. 8*d*. ; Peruvian, 1*s*. to 6*d*. per pound.—Saltpetre : Small steady home demand ; loose 25*s*. ; fine 24*s*. ; lump in steady home demand ; loose 25*s*. ; fine 26*s*. and 7*l*. in export barrels ; ground at 7*l*.—Ammonia : Brown oil sold at 14*l*. to 14*l*. 5*s*. ; white and grey in large enquiry at 10*l*. 17*l*. 17*s*. Dry, steady, at 5*s*. ; Green and rusty, dull, at 5*s*. 6*d*. Acid : Tartaric, rather —Arsenic : At 8*l*. 15*s*. to 7*l*. 5*s*. for fine powdered. Sulphuric acid, at 3*s*. to 1*s*. 9*d*. to 1*s*. 3*d*. 4*d*. oxalic, at 7*d*. to 6*d*. 4*d*. sulphuric, at 3*s*. to 1*s*. 9*d*. Magnesia : Spoon salts 1*s*. 10*d*. to 1*s*. 7*d*. 6*d*. for refined.—Oils : Oil of Peppermint, 50*s*. ; Steady ; lubricating oils, at from 2*s*. to 5*s*. per gallon offered at Norwegian cod liver oil, 9*l*. 10*s*. per barrel.—Benzole is often used for kerosene, 2*s*. 4*d*. for 30 per cent.—Disinfectants : Patent, at 5*s*. per ton for corporate bodies.—Fertilisers : Firm, and selling well.—Guano : Peru, 4*s*. to 4*s*. 6*d*. carbolic, at 10*s*.—China clay : 22*s*. per ton.—Pyrites : Firm, and selling well at 7*d*. 6*d*. per unit. Calcined Spanish, 4*s*. to 4*s*. 6*d*. R.C.—Lime : Bleached same as last, at 8*s*. 12*s*. to 9*l*. 2*s*. Superphosphates at 4*s*. 4*s*. Mineral phosphates, 5*s*. to 6*s*. for small per cent., and 1*s*. 3*d*. per unit for larger percentages.

MANAGERS: Few arrivals of large parcels, and at 70s. to 80s. for 70 per cent. Hematite in active request, at 16s. to 18s. Oolitic at 6s. 9d. in Staffordshire.

MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

WRETLAND.—The directors are expecting the advised remittance of Oct. 1, writes—"I have not yet received the Mint certificate of last year, but as soon as I do I will forward the account. My prospects for this year are tolerably good, but I am putting in some under-currents in the creek, and will add something to the expense, but will increase the returns for the year very much. I shall also build a blacksmith's shop during this run, and have done these things sooner, but did not wish to lessen the returns.

TOR.—At the last general meeting of adventurers a bar of the mine, and which gave a produce of 68% of white tin, was laid on the table, and the directors, from the results of the explorations for tin, and the samples tried, they had every reason to believe that the call then would be the last.

REPLY TO THE ANONYMOUS ENQUIRY INSERTED IN THE MINING JOURNAL.—The managing director and Capt. Edwards will publish all particulars of the patent pneumatic stamps, as suggested, as soon as they are in the order. The directors also (that no mistake may arise) an extract from the patents, dated Oct. 15—"You shall hear as soon as mine is doing, meantime, beg of you to exercise patience, as it is of some moment." This enquiry refers to certain batteries of stamps that are in course of erection, awaiting the finishing of the driving-engine. The directors further invite the manufacturer to visit the Terras Mine, and see the new stone-breaker purchased for the manufacture, which will be at work in about a month hence. The manufacturer says—"I will, if all be well, have a 20 by 9 at the mines in four weeks from this date: Oct. 27."

CONSOLES.—Having been in the neighbourhood of this mine, I thought I would pay a visit to the same, having heard that there was a discovery of tin on a new north lode at surface, which could be worked to the surface. I found this lode as described, from 6 to 10 feet wide, with a good appearance; I could not say its value, but judging from its looks, I should judge it to be a very good lode, and I am sure it is worth driving north 40 fms., to the surface. I also find that there is a cross-cut driven north 40 fms., to the surface, and that point as described at surface, you have a mine good and productive, and I am sure it is worth driving north 40 fms., to the surface. I should advise that a few tons of the lode be stamped and tested at the mill, to prove the results of former assays, although I have no doubt in my own mind that it is rich for tin.

HYDOTALOG (silver-lead) the agent reports a continuation of the discovery of ore in sinking the engine-shaft below the 15 fm. level; in the 15 fm. level of the cross lode; the lode is becoming richer in silver, and the influence of the cross lode. The success of this undertaking has induced an influential party to take up the adjoining ground, with a view of further developing the same lodes that present such favourable prospects in Rhyltalog.

WEST GODOLPHIN a report has been received to-day informing the shareholders of an important discovery which has been made on a lode which has been partially developed. The discovery was made by a Mr. J. H. B. who will, no doubt, make "a good start," having taken the lode to be 3 feet wide, and worth fully 20s. per fm.; and of great importance to the shareholders, running as it does through the east to west, a distance of about one mile. The system of working on this lode, which is generally so little practised in modern mining, is encouraged by the mine, and the above is not the only case in which it has proved of advantage to the company as well as to their enterprising miners.

MINING IN SOUTH WALES.—MR. HENRY GIBSON, AND RHYDTALOG. In 1863, when I went with Mr. H. Gibson to pay the purchase money for the mine, he was accompanied by Mr. David Jeremy, of Llandovey, also Mr. H. Gibson's surveyor. The sheep farmer complained very much about the mine, and Mr. Gibson said he would lose his sheep, and wished to sell the mine. Mr. Gibson asked Mr. Rosser what the man was talking about, when he explained, as he spoke Welsh. Mr. Gibson directed him to ask the wanted for them; a price was named, and Mr. Gibson said he would buy the mine, so in less than two hours Mr. Gibson was a sheep farmer at Rhyltalog. I believe at the end of the year 1864 Mr. Gibson disposed of the same.—*Rhyltalog, Oct. 27.*

WYLLY AND TONKIN.—These mines were inspected last week

by Mr. Taylor, of the Caradon Mines, who reports that the good prospects of the mine are of a very good character. The lead lode in the 45 fm. level is intersected, and the discovery may soon be expected. There are also important improvements in the copper lode.

POWELL CONSOLES.—This mine was inspected on Tuesday

by several practical agents, who report in the highest terms of its prospects in the future, and the operations are at present confined to the sinking a shaft to the tin lode, where they have a large lode producing good work, and also in opening up the adit level; here they have met with a splendid copper lode 2½ feet wide, producing fine rocks of gossan of the richest quality, containing blue and green carbonates and oxide of copper; a winze was commenced in the bottom of the adit level on this lode, showing every indication of richness on further development.

THIRAS TIN.—In the drive for the tramway at a deeper point

the open cutting on the extraordinary tin-producing elvan course they met with a new lode, carrying a leader of tin 1 ft. wide, two-thirds tin, and 1/3 waste. The lode is also yielding more tin, the elvan being more productive than hitherto represented. The stamps are working. One of Blake's stone-crushers will soon be at work, with additional stamping-power, and another set of tin now preparing for use. This augurs well for the prosperity of this splendid company, and will, no doubt, be handsomely remunerated with dividends.

FRAMES FOR TREATING ORES.—The object of the invention of

Mr. L. B. V. V. is to so arrange a furnace as to permit the treatment of iron ores with the employment of flame of gas similar to those produced in blast or high furnaces. In the upper part of the vertical trough of ordinary blast-furnaces, the minerals are first subjected to a sufficient temperature to reduce and carburate them, but not high enough to oxidize them. Then, by the descent of the charge progressively against the tuyeres (that is to say, the part where the maximum of heat is developed) arrives at the temperature of fusion, when it is reduced and carburated. This gradual increase of temperature and succession of operations are essential for the success of the treatment in high furnaces wherein solid materials placed in contact with the minerals are employed.

STAMPING FURNACES.—Mr. S. MEREDITH, of Tipton, constructs

stamping and bottom plates in the ordinary manner, and underneath the bottom plates a shallow trough or vessel, of somewhat larger size than the plate, the upper edge of the said trough being on the same level as the upper surface of the bottom plates. The top edge of trough is raised up its inner side. The trough is made of cast-iron in two or more pieces, and is held together by screw bolts and nuts. It is provided with ribs or stiffeners for supporting the bottom plates, the ends of the bottom plates resting on the ribs, and the ribs on the upper surface of the trough. Along the outside of the trough bearing plates of the usual construction. Along the outside of the trough a horizontal water pipe or tube runs, and is pierced with fine holes towards the side plates. Water is supplied to the water pipe, and

passes out at the small holes, and falls upon the outside of the said plates, and runs down and cools them. The water from the side plates is received in the trough under the bed or bottom plates of the furnace.

VENTILATING.—Mr. G. ELLIOT, M.P. for North Durham, takes (say) a vessel which has to pass through various parts of the world, in which the heat of the atmosphere is oppressive to the passengers and crew, and where it is necessary that the heat of the cabins or compartments should be reduced. He fits or arranges a series of perforated or open-ended pipes along the ceilings or other parts of the berths and cabins; these all lead from a reservoir or chamber in which a fan is connected or fitted, so that while the fan is at work fresh air is made to circulate through the pipes or the pipes into each of the compartments. The air in its passage either to the fan or after it has left it is caused to come in contact with a set of pipes or hollow plates, in which cold water is made to flow either in the pipes or in contact with the external surface of the pipes. The supply of water he proposes to obtain from the sea or river, and at some depth below the surface by lifting or forcing it through a pipe or pipes in connection with the vessel to the required depth.

COMPRESSING FUEL.—Mr. F. J. HAMEL, Avenue-road, N.W., forms the moulds for the compression of artificial or agglomerated fuel of a succession of chambers or perforations, either square, round, octagonal, or other desired shape, formed entire; through a traversing block of iron or other strong material, so arranged and operated as to bring each chamber successively in front of a strong pillar or block capable of offering considerable resistance, and which will for the time being form the closure or end of each such chamber as it comes into place, and thus constitute a mould to receive from a hopper-fed tube (whose bore is of similar cross-sectional configuration and size) the charge of material to be compressed, such charge to be propelled from the tube into the mould, and be therein compressed by a rod or plunger into an agglomerated or solid block of fuel.

TREATING PROTOXIDES.—The invention of Mr. J. TOWNSEND, of Glasgow, relates, first, to obtaining iron and manganese protoxides or their carbonates from and thereby utilising iron or "waste" products arising in the manufacture of chlorine, copper, and alum; second, to applying of iron and manganese protoxides or their carbonates; third, to obtaining and applying of baryta, strontia, and salts thereof, in the improved modes; fourth, to obtaining of potash, soda, and sulphur in the improved means; fifth, the utilisation of the waste liquors of the alum and copper manufactures by obtaining potash sulphate therefrom.

PNEUMATIC ENGINE.—The invention of Mr. S. MORTON, Philadelphia, consists, first, in forming a vacuum or partial vacuum on alternate sides of the piston to work an engine by the pressure of the atmosphere. Second, in forming a single vacuum vessel comprising two distinct vacuum chambers and a surrounding water-jacket, and single valves for the top and bottom apertures of the chambers.

STEAM-ENGINES.—The invention of Mr. G. M. H. AUDEMAR, Montecau, France, consists, first, in a so-called "double cam" applied to steam-engines with reversed movements—that is to say, a cam composed of two single corresponding cams with an uneven outline, increasing from the point where the admission is nil to the point where the admission is full. Second, the simultaneous action and the dependent movement of the cam and Stephenson's reverse movement slide, this movement being transmitted to said cam and slide by a single lever.

STEAM-BOILERS.—The invention of Mr. F. B. BLANCHARD, New York, consists in dividing the boiler into sections, whereby the body of water therein is separated in different compartments, which are successively heated, and in which the water is maintained at different degrees of temperature, according to the distance of the respective compartments from the fire in the course of the circulation of the heat, and between which the circulation of the water is only in one direction—from the cooler to the hotter compartments.

ANOTHER CURE OF DISEASE OF THE LUNGS OF TEN YEARS' STANDING BY DR. LOOCK'S PULMONIC WAFERS.—From Mr. D. Verrent, Coast Guard, Mountcharles, Donegal:—"They are all they are represented to be. I have a child who was affected in the lungs (for 10 years), and they are the only thing that has done him any good." They give instant relief to asthma, consumption, coughs, colds, and all disorders of the breath and lungs. Prices 1½d. per box. Sold by all druggists.

HOLLOWAY'S PILLS—PROVISION.—As autumn treads on winter slender, delicate, and pale face youths become listless, languid, and debilitated, unless an alternative, combined with some tonic, be administered to quicken their enfeebled organs. This precious requirement is supplied in these noted pills, which can and will accomplish all that is wanted, provided the printed instructions surrounding them meet with scrupulous attention. Holloway's pills are especially adapted to supply the medical want of youth, because his medicine acts gently, though surely, as a purifier, regulator, alternative tonic, and mild aperient. A very few doses of these pills will convince any discouraged invalid that his cure lies in his own hands, and a little perseverance only is demanded for its completion.

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THE MINES OF WALES: THEIR PRESENT POSITION AND PROSPECTS.

By THOMAS SPARGO,

GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

The above is published by the Author, from whom it may be obtained, as also at the MINING JOURNAL Office, 26, Fleet-street, E.C.

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NEW VICTORIA (SOUTH DEVON) MINING COMPANY,

(LIMITED).

REGISTERED UNDER THE COMPANIES ACTS, 1862 AND 1867.

CAPITAL £20,000, IN £1 SHARES.

FIRST ISSUE, FOURTEEN THOUSAND SHARES.

SECRETARY AND LONDON MANAGER.

JOHN G. BARRY, Esq., Accountant, 8, Old Jewry, London, E.C.

LOCAL MANAGERS AND PURSERS.

Captain WILLIAM SKEWIS, Tavistock, Devonshire—Mine Manager.

Mr. MOSES BAWDEN, Tavistock, Devonshire—Mine Accountant.

Captain WILLIAM GEORGE, Ashburton, Devonshire—Resident Agent.

BANKERS—Messrs. WATTS AND CO., Ashburton, Devonshire; and THE CENTRAL BANK OF LONDON, Cornhill, London.

SOLICITORS—Messrs. LOXLEY and MORLEY, 80, Cheapside, London.

A meeting of the directors of this company held on the 19th September the following resolution was passed:—
Resolved,—"That the secretary is hereby authorised to close the share-list to the number of 14,000 shares (being the full number of first issue of shares) in the company's prospectus, by accepting applications for shares from any shareholder at par, and from non-shareholders at 10s. p.r. share. In the latter case the amount of premium to accompany the letter of application for shares."

It is not anticipated that any further issue of shares beyond the 14,000 will be required, as it is expected that in the early part of the year the mine will not only become self-supporting, but will also be making profits. Copies of prospectus and recent reports may be obtained at the office. All applications to be addressed to the secretary in writing.

The new engine, erected by the present company, was started on the 9th December, 1869, and after experiencing very great difficulties in clearing the mine between the 66 and 86 fm. levels, caused by a change in the inclination of the shaft between the 76 and 86 fm. levels, the mine agents succeeded in forking the mine to the bottom on the 21st October. The driving of the 86 fm. level was commenced on the 11th of October, and the driving of the 96 fm. level will probably be commenced in a few days.

This mine, upon the opening of which so large an amount of capital has been spent, and which from time to time has created so much interest, and the new engine being considered equal to twice its present work, is expected by the present management very soon to be proved to be a great success.

Enquiries as to the character of the lodes in sight, and as to the prospects of the mine, may be addressed to Capt. W. GEORGE, of Crelake Mine, Tavistock; Capt. R. TREVARTHEN, of New Birch Tor Mine, Chadford, near Exeter; and Capt. W. GEORGE, of Betsy Mine, Tavistock.

Extract from the MINING JOURNAL, London, Saturday, September 17th, 1870.

NEW VICTORIA (SOUTH DEVON) MINING COMPANY.—Favourable reference was made to this undertaking when it was introduced to the public, and the progress has been made with the preliminary operations, with the view of extending the development of the property upon a compatible with its merits. According to the testimony of a well-known practical authority as to the position of the mine, and judging of its future from the character of the lodes as now opened on at the several bottom levels, the plant and pitwork being in good working order, its present value estimated at not less than £30,000.

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—H. Francis, Oct. 27: Since my last we have been taking down the lode on the north side of No. 2 adit level east, and we find it to yield about 15 cwt. of lead ore per fathom for the width taken down. There is more ore north of us, which we shall strip down until we get through it. The lode in the end of the cross-cut, north from No. 2 adit, is of a most promising character, and, so far as human foresight goes, we shall certainly meet with a discovery here ultimately. We have this week been clearing and tramming out ore stuff from the deep adit level, with a view to forming a passage from this No. 2 adit for the free ventilation of both levels, which has been somewhat interrupted by the filling up of old stopes by stuff broken in No. 2 adit.

ASHSTON.—Wm. T. Harris, Oct. 26: Lindown's shaft is sunk 8 fms. 3 feet below the deep adit; the ground is about the same as for some time past. The water has considerably increased within the last few days, in consequence of the heavy rains which have fallen of late. The cross-cut through the lode in the deep adit level yields good stones of lead, and is very promising. The lode in back of this level yields lead, as last reported.—*Cambria Shaft:* The lode is 2½ ft. wide, producing a little lead. The men are now engaged cutting ground for clarn, &c. Mawr shaft has been cleared 7 fms. below the deep adit. We have commenced a short cross-cut to communicate with the shaft, for convenience in getting away the stuff and water, which will require about a fortnight to complete. Rudge's shaft is suspended, in consequence of an influx of water.

—Wm. Johns, Oct. 17: This mine is situated in Carnarvonshire, and is very extensive both in length and breadth. There are two lodes well known to traverse the set, one from north to south, the other from east to west.—*North and South Lode:* An adit level has been taken up from the beach, and driven on the course of the lode some distance; we have passed through in this drive a very fine lode, over 200 fms. in length, and where cut through it is 30 ft. wide; the portion of the lode carried is 4 ft. wide, producing in places 1, 2, and 3 tons of lead ore per fathom. A pretty deal of available and profitable ground is laid open in the back of the level, and can now be worked to a great advantage. Several winzes have been sunk in the bottom of this level, to prove the lode; this I could not see, the same being full of water; but in each of these places it is reported there is a good lode of ore; and, judging from the ore ground in the backs, I have not the least doubt but that such is the case. In the last 6 or 8 fms. driven in the end south of Lindown's shaft the lode has not been very productive. Within 35 fms. of the present end a cross-cut is driven east about 9 fms., to intersect Lindown's shaft, which is now sunk 8 fms. below the level in the country; this shaft will speedily be down to the required depth for the next level; and when the lode is intersected you have a right to expect good results.—*East and West Lode:* The Cambrian shaft is now sunk 15 fms. below the deep adit; the lode in the bottom is from 4 to 5 ft. wide, producing good stones of lead ore—a very valuable lode. Mawr shaft is in course of clearing up; there is some portion of the lode still standing in the side of the shaft left by the former workers, and by all appearance, judging from the lode worked away, the former have had a good course of ore, which is a great inducement to see the bottom of the shaft as early as possible. Gundry's shaft, which is about 150 fms. west of Mawr shaft, is suspended, in consequence of the water being too powerful to be kept by manual labour. At surface you have done a pretty deal of work—erected engine-house, &c., and placed in the same two 18-in. cylinder horizontal engines, with boilers complete, and attached a line of flat-rods to Cambrian and Mawr shafts; there are also a crusher and winding gear in course of erection, with all other necessary buildings, and no doubt you will shortly have dressing floors laid out. I have pointed out the present working operations; and for its speedy development I would suggest that an additional line of flat-rods be attached from the engine to the old engine-shaft on the north and south lodes, which is now sunk 7 fms. below the adit, and reported to be sunk through a good lode of lead ore, and still remains in the extreme bottom. This shaft I should advise to be resumed at once, and sunk (say) 10 to 15 fms. below the adit level; you would then be in a position to drive both north and south of the same in the run of ore ground, and should it last down, which, as I said before, I do not doubt, whatever the result would quickly place the mine on a good footing; thus, with the reserve ground already laid open in the adit, you would then be able to make good returns. And, in addition to this, I think it right to remark that you have good chances on the east and west lodes, when further developed, of meeting with something good; and I am fully persuaded, if energetically worked, this mine will become ere long a profitable and lasting property.

BALLACORKISH.—Capt. Trewn, Oct. 22: In the end driving east, or in the direction for King's lode, the ground in the forebreast is present intersected with small stuff with sulphur, and letting out more water. The water is sinking in King's shaft, and is now 12 fms. 2 ft. below the collar of the shaft. In the end driving north of the Dowk vein, at the 12, the lode is about 9 in. wide, producing some kindly stones of blende, spotted with lead ore, and there is now a very pretty channel of ground in the forebreast of the end, and the lode is letting out more water. The men are making good progress. I shall urge on this end north, so as to get back under the run of ore ground gone down in the bottom of the adit level. In the cross-cut driving west from the engine-shaft, at the 36, we have cut through three or four small branches of quartz crossing the end obliquely, spotted with sulphur, and now letting out a little water.

BEDFORD UNITED.—James Phillips, Oct. 27: The shaftmen are still engaged about the trip-plate. We shall take down the lode in the plat and in the end of the 103 fm. level, and report their size and character, next week. The lode in the 90 west is near 5 feet wide, and is still full 8 tons of ore per fathom. The lode in the back of this level, for a length of 6 fms., averages about 6 tons of ore per fathom. The lode in the 90 east is 2 feet wide, with 3 tons of ore per fathom. The lode in the bottom of this level, east and west of John's winze, are yielding 4½ tons of ore per fathom. The 75 fm. level end east is being carried between the two parts of the lode, which are fast making together before the end. The lode in the back of this level is producing from 1 to 5 tons of ore per fathom. Arrangements for the ventilation of the Delve's 4Klitch, or south lode, are nearly completed; when finished, driving east on its course will be commenced. We have already begun to prove a promising lead lode a few fathoms west of the cross-cut, and just behind the slide, by sinking up it.

BLAEN CAELAN.—Oct. 28: Telegram: This morning we have cut into a fine body of lead ore in the 10 fm. level below adit.

BUDNICK CONSOLES.—J. Rawlings, R. Hill, Oct. 27: We are progressing as fast as possible with our dressing, considering the misfortune to the platon-rod of the stamps engine, which has delayed us for a week, and the very severe weather; but we hope to have the dressing-floors covered over by the coming month, to enable us to go on with the dressing in all weathers. We shall sample a parcel of tin on Saturday the 29th instant.

CAEGYON.—Oct. 26: The men in the engine-shaft have not done much towards sinking for the last week, as the water has been in, the late rains having overpowered our lifts. In the 50 cross-cut, south of the south lode, the end has become very wet, and appears to be getting near the lode we have just cut in the bottom of the engine-shaft. The lode in the 50, west of the cross-cut, has improved, and is now producing good stones of lead ore, and promises further improvement. No alteration in the stopes above the 50, on the north lode. In the 40 cross-cut north we have not met with any lode, and I have remarked the men to drive south at right angles with the north cross-cut. The lode in the back of the 30 east is not looking quite so well as it was last week. We are breaking some good work for blende and lead ore from the north branch of the south lode, in the 20. Nothing new in the stopes below adit, on the south lode; the men have only been able to work a day or two for the last week, in consequence of the surface water coming down on this stopes. Nothing new in the adit cross-cut north.

CARFARHA.—E. Williams, Oct. 24: The end of the 15 fathom level cross-cut, being driven south to intersect the great Eglwys lode, has come to a very strong floor again running out of the main lode, which will be discovered, by all present appearances, at the distance mentioned in my last report—1 to 2 fms. The above named discovery was made by the last blast on Saturday, after the directors had left the mine, and contains a great deal of copper and lead ore of a very promising quality.

CAPE CORNWALL.—R. Pryor, John Davey, Oct. 25: There is more water coming out of the 70 fm. level cross-cut, south of the engine-shaft, but there is no change to notice in the 100 fm. level cross-cut, north of ditto, since our last. **CAPE CORNWALL.**—W. Thomas, Oct. 25: We have cleared the 24 fm. level, west of skip-shaft, and also the cross-cut to the north lode. On Saturday last we had some blasts in this lode, which produced fine stones of rich ore, carbonate of copper, &c. This lode has been cut into over 3 ft., but as the north wall has not been reached, and more lode still standing, I have to-day set a lump bargain to break through and take down all the lode to the north wall, after which we shall carry up a rise 1 ft. long on the course of the lode to the 34 fm. level, and follow it to the deeper levels, for as far as I can at present form an opinion, it is entirely in whole ground, and has a very promising appearance. The sample of ore, &c., from this lode, which was forwarded last Saturday, will speak for itself. East of skip-shaft about 20 fms. from the point just referred to, another cross-cut has been driven, with the view of intersecting this north lode, but it was not driven far enough, and as there are strong stains of carbonate of copper exuding from the forebreast, the distance to drive to intersect the lode, I think, will be short; this end should consequently be driven at once. The stopes in the 64 fm. level are producing a fair quantity of good ore, and all other work going on as fast as possible.

CARFARHA BAY CONSOLES.—Charles Williams, Oct. 27: Pansarn: The lode in the 10, west of engine-shaft, is 6 ft. wide, consisting of spar, slate, and silver-lead ore, worth of the latter 18s. per fathom. We shall have a great improvement in this end in the course of a week or nine days at the farthest.—*Brynarian old adit:* We have cut into a great stream of water in the cross-cut north from this adit yesterday, and from all appearance we are nearing the lode. The ground in the end is highly mineralised, consisting of spar, mundle, copper, and spots of ore.—*Boundary Shaft:* I expect to cut the great lead lode every day. North and south lode without change, worth 80s. per fathom. The crusher is working very satisfactorily, and the ore is turning out well. The weather has been very much against us of late.

CERN BRWYNO.—James Paull, Oct. 25: The lode at the 92, going west, has improved, now being 5 ft. wide, and worth 1 ton 5 cwt. of lead ore per fathom. Good progress is being made in sinking the winze below the 80 west, where the lode is producing 15 cwt. of lead ore per fathom. All other points in the mine are without any material change since last reported on. You will receive a full report, with the cost-sheet, next week. The dressing and all surface work is going on favourably.

CHERTON MOOR.—G. E. Tremayne, Wm. Bennetts, Oct. 25: The engine-shaft is in a regular course of sinking below the 105, the ground in which is a favourable character for sinking. In the 105 cross-cut, south of the engine-shaft, the ground is improved, and good progress is being made. In the 95 west the lode, east and west of the cross-cut, is from 2½ to 3 ft. wide, producing good stones of lead, and from present appearances we soon expect a great improvement. The lode in the 85 west is at present divided by a cross branch; the part of the lode we are at present carrying is worth about 10 cwt. of lead. This division we may regard as temporary. There are five stopes in the back of the 85, which are worth on an average 15 cwt. of lead per fathom. At the trial shaft we are driving east and west on the course of the lode in; 20 fm. level, which is 2 ft. wide, of a promising appearance. No change to notice in any other part of the mine since our last report.

CRENWYD AND WHEAL ABRAHAM UNITED.—William Kitto, William J. Paull, Oct. 25: Sturt's Engine-Shaft: The sampmen have completed driving

With this week's Journal a SUPPLEMENTAL SHEET is given, which contains: A Progressive Series of Popular Lectures on Geology, No. II.—Large Quantities of Tin in Tennesseim.—W. Jory Henwood's Work on Metalliferous Deposits, and Subterranean Temperature.—Foreign Mining and Metallurgy.—South African Diamond Fields (J. Gill).—Cape Colony, and the Diamond Fields.—Prof. Goodeve's "Elements of Mechanism"—Invisible Postal Ink.—Foreign Mines Reports.—Patent Matters.—Original Correspondence: Coal-Cutting Machinery; Shelton Bar-Iron Works; Truck System in South Wales; Rating of Mines, &c.; New Rock-Boring Machine; Neglected Mines in Cornwall; Wheel, Huel, or Mine? (T. E. W. Thomas, and T. A. Masey); Queen, Kirg, and the Virtuous Lady Mines (T. J. Barnard); Wheel Greuville r. South Condurrow (J. Watson), &c.

YUDANAMUTANA COPPER MINING COMPANY OF SOUTH AUSTRALIA.—We are requested to state, with reference to this company, that more than the minimum nominal amount of the small additional capital required has been subscribed by the shareholders.

THE ARIVACA MINING COMPANY.—The explanation we gave in last week's Journal as to Mr. Hitchens's valuation of the ore to be raised here will be further attended to next week.

MINING IN IRELAND.—A number of substantial English capitalists have just completed the purchase of the iron, manganese, and copper mines at Glandore, county Cork, which have been known some time, but have not been thoroughly worked. The purchase of this mining property has been made through Messrs. Chadwicks, Adamson, Collier, and Co., of London and Manchester, and the proprietors of the company include the well-known names of Messrs. Peter Spence, J.P., Alderman Rumney, J.P., Dr. Edward Hunt, Benjamin Whitworth, J.P. (late M.P. for Drogheda), David Chadwick, M.P., and John Stuart, banker, Manchester. We hope they will be successful, and that their present venture will be the pioneer of many other profitable adventures in Ireland, by which its resources may be developed, and its people benefited.

MINING IN ST. AGNES.—The Polbreen Company, it will be seen, held their third account-day at the mine, on Saturday. The prospects of the adventure are so good that the shareholders decided on making a call of 15s. per share, being satisfied the money so raised would be sufficient, with extra exertion, to carry on operations to dividend. Some of the old miners estimate the value of the lode discovered during the past summer at 100% per fathom. Capt. Nancarrow's estimate is more moderate, but still at a value ample for good and early dividends. The actual mining operations on this sett began only in February last, so that the shareholders are looking for their first dividend in 12 months from that date.

TANKERVILLE.—On Wednesday 75 tons of lead ore was sold, at 12½. per ton, making, with the sale effected on Oct. 12, 150 tons the produce of the month. The lode in the shaft sinking below the 92 fm. level continues to look well, and will shortly be down to the 102 fm. level, having only 2 fms. more to sink to attain this depth; driving will then be commenced upon the rich lode, when increased returns and profits will be realised.

WEST JEWELL.—This mine continues to open out exceedingly well. The lode in the 37 is now worth 40% per fathom. The new pumping-engine is completed, and will go to work on Nov. 5. It is expected that at the first general meeting a dividend will be declared.

MID-WALES.—It is understood that the liquidators have already made arrangements whereby the interests of the present shareholders will be protected, and an opportunity afforded them of retaining upon advantageous terms their holding in the reconstituted company. It is considered that a further small additional expenditure will be sufficient to place the mine in a profitable condition; and, therefore, it is much to be regretted that the members did not come forward to avert the necessity which has arisen to liquidate the present company, in accordance with the provisions of the Companies Act.

The **TWERTON COLLIERY**, comprising about 200 acres, situated about two miles from Bath, and held under lease with 51 years unexpired, is considered to be capable of yielding 1800 tons per week for the remainder of the lease, and additional capital is now being sought for putting it in complete working order and continuing its development. A great extent of ground has been explored, but the colliery has but one pit; much small is made, owing to the mode of working; and various additions and improvements are required to place the property in a satisfactory condition. Mr. C. H. Waring considers the present pit and machinery capable of raising 600 tons per week, yielding a profit of 3000% per annum, independently of any profit that may accrue from the manufacture of coke or patent fuel, and he estimates the cost of the new pit, machinery, &c., including a tramway to the Great Western Railway, at 15,000. From three to four years will be required to sink the new pit, after which, taking the get at 90,000 tons per annum, the profit is estimated at 11,250%, and the present gross value of the concern (exclusive of plant) is estimated at 56,250%. It is proposed to utilise the small coal by adopting Barker's process, estimated to give a net profit of 7000% per annum. The prospectus will, no doubt, be shortly issued.

WEST RHOSWYDDOL.—The work of driving the cross-cut to intersect the main lode at this promising young mine is being carried on with all possible speed, and although the ground is hard, and makes much water, favourable progress is reported. Some surface explorations recently undertaken show that the lode underlies more than was at first supposed, and also that its course has been heavier further north by the force of the Rhoswyddol and Cae Conroy veins, which, traversing this sett, form a junction with the main lode about the point where it is expected the cross-cut will intersect it: the length of the drive will, consequently, be slightly increased, but a more than corresponding advantage is gained in the greater depth of backs obtained when the lode shall be cut. The late severe rains have seriously impeded the sinking of the shaft, and the costening in the northern portion of the sett; it has, therefore, been deemed advisable to suspend these operations until the return of finer weather, and in the meantime to concentrate all the available power in the prosecution of the cross-cut, where the rock is growing gradually harder, and letting out a considerable flow of water, while many spots and occasional branches of ore are met with, accompanied by such general indications as are presented on reaching the immediate neighbourhood of a strong and productive lode.

The **BRYNAMBOR LEAD MINE** (Cardiganshire).—We noticed a short time ago that a company was being organised for the purpose of re-working this well-known and valuable property, and we now understand that this has been successfully accomplished, and that active operations have been commenced, with every prospect of results at least equal to the anticipations of all those who know the mine. In order to have an official examination of the property, previous to commencing operations, we learn that the Chairman of the company, Mr. C. Campbell Downs, C.E., accompanied by Mr. Wright, the well-known engineer of London, visited it a few days back, and on their return have expressed themselves much pleased with the result of their examination. They report that the machinery, winding, pumping, and crushing, with the necessary water-wheel is in good order, and ready for immediate use, that a few days' work (which has already commenced) will be sufficient to repair the water-course, set the pumps going, and drain the mine, when the underground works can at once commence; and as it is undoubted that the water-power is practically unlimited, there can be no question that this work will be readily accomplished. The gentlemen named also devoted considerable time to obtain reliable information as to the condition and prospects of the underground works, the result being the conviction in their minds, as we are informed, that the mine is everything which has been represented or could be wished. We remember the Brynambor to have been a favorite mine with that excellent authority, the late Capt. M. Francis; and coupling this fact with the excellence of the district, the great advantages in the way of water-power, existing machinery, and now of easy land carriage, and the considerable quantity of pure lead ores which were actually obtained without the above advantages, when the mine was formerly opened, we doubt not that in a very few months we shall be able to congratulate the shareholders upon the possession of a property holding a very high place among the dividend-paying mines of Wales.

GUERRERO (Gold).—Mr. H. W. Mathins has resigned the secretaryship of the Guerrero Gold Mining Company (Limited).

THE CORNISH MINE SHARE MARKET.—A fair amount of business has been transacted this week, especially in tin stock, and prices generally have been fully maintained as compared with last week's quotations. The tin market has been firm, although stationary as to prices, and the peace negotiations which have been initiated by our own Government this week have naturally tended to support both the tin and share markets. It is to be hoped that the paralyzing influence of the war, which have operated so injuriously during its prevalence on trade and commerce, will be speedily dissipated by the establishment of peace on a sound and satisfactory basis. Our own mining industry, which has, perhaps, not been affected so much as some other industries by the continental strife, would, nevertheless, be sure to be beneficially influenced to a considerable degree by peace efforts being crowned with success.—*West Briton*

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, OCT. 28, 1870.

COPPER.		IRON.	
Best selected	£ 68 0 0	Bars Welsh, in London	7 5 0
Tough cake and tile	66 0 0	Ditto, to arrive	7 10 0
Sheathing & sheets	70 0 0	Nail rods	7 10 0
Boils	73 0 0	Stand. in London	7 15 0
Bottoms	73 0 0	Bars, ditto	8 2 0
Old	60 0 0	Hoops, ditto	8 15 0
Burra Burra	69 0 0	Bars, at works	7 15 0
Wire	0 0 10½	Hoops, ditto	8 2 0
Tubes	0 0 10½	Sheets, single	9 10 0
BRASS.		Fig No. 1, in Wales	3 15 0
Sheets	7½d.	Refined metal, ditto	4 0 0
Wire	7d.-7½d.	Bars, common ditto	6 10 0
Tubes	9½d.-10½d.	Do. mch. Tynor Tees	6 10 0
Yellow Metal Sheathing	6½d.-7d.	Do., railway, in Wales	6 0 0
Sheets	6d.-6½d.	Do., Swed. in London	9 10 0
SPELTHER.		To arrive	9 15 0
Foreign on the spot	£ 17 5 0	Fig. No. 1, in Clyde	2 12 0
" to arrive	17 5 0	Do. f.o.b. Tynor Tees	2 6 0
ZINC.		Do. Nos. 3, 4, f.o.b. do.	2 6 0
In sheets	£ 22 0 0	Railway chairs	5 17 0
QUICKSILVER (p. bottle)	8 18 0	" spikes	0 12 0
TIN.		Indian Charcoal Pigs,	
English blocks	£ 129 0 0	In London, p. ton	5 5 0
Do., bars (in brils)	130 0 0	STEEL.	
Do., refined	133 0 0	Swed., in kegs (rolled)	12 10 0
Ganea	126 0 0	" (hammered)	13 0 13 0
Scralls	126 0 0	Ditto, in faggots	15 0 0
TIN-PLATES.		English, spring	17 0 0
IC Charcoal, 1st qua.	1 7 0	LEAD.	
IX Ditto, 1st quality	1 13 0	English Pig, com.	18 0 0
IX Ditto, 2d quality	1 5 0	Ditto, L.B.	18 2 0
IX Ditto, 3d quality	1 1 0	Ditto, W.B.	19 10 0
IX Ditto, 4th quality	1 1 0	Ditto, sheet	19 0 0
IX Ditto, 5th quality	1 1 0	Ditto, red lead	20 0 0
IX Ditto, 6th quality	1 1 0	Ditto, white	28 0 0
IX Ditto, 7th quality	1 1 0	Ditto, patent shot	21 10 0
IX Ditto, 8th quality	1 1 0	Spanish	17 10 0
IX Ditto, 9th quality	1 1 0		

REMARKS.—The Metal Market has not undergone any important change since our last issue. There is always a certain amount of business going on to meet the daily requirements of home consumption, but beyond this there is little or nothing doing.

COPPER.—The last charters announced from Chili being only for 200 tons, the market is firm, and rather more business is doing, at 62½, our highest quotation last week, and 10s. more for best brands. In ordinary times such small charters as have lately been announced would have been followed by an advance in price and a large business, but in these days the utmost caution is exercised, and for the present the announcement of light charters fails to stimulate the market. Business has been done in English tough at 66½, and best selected at 68½.

YELLOW METAL is quiet, at quotations as above.

IRON.—However unwilling those interested in the iron trade may be to acknowledge the real state of affairs, it is no use endeavouring to deceive either themselves or the public with regard to the very critical position into which the trade generally is drifting. Great efforts have been made to stimulate production, and large forward contracts having been entered into at remunerative prices, the present sluggishness has not yet had very much effect upon the works. Many of the mills are still in full work, and the blast-furnaces keep pouring in their supplies as vigorously as ever. Perhaps for a month or two longer matters may go on much as usual, but by that time the American and Russian orders will have been completed, and there being no other contracts of any magnitude on the books, a period of slackness must be expected, for which it would be well to prepare. There are a few enquiries afloat for Swedish iron, but sellers, having already landed various parcels which were not sold for arrival, are unwilling to submit to such concessions as buyers demand. It might be different with respect to any parcels which may be still coming forward; and, judging from the state of the market, the probability is that, rather than incur the expense of landing and warehouse charges, holders might be disposed to accept the terms at which buyers are prepared to purchase. Scotch pig-iron has been quiet during the week, and not subject to any material variation in price. A moderate business has been done, at 51s. 4d. to 51s. 7d. cash. The market closes with buyers, g.m.b., 51s. 4½d., sellers 51s. 6d. The shipments for the week ending Oct. 22 were 14,298 tons, showing an increase upon the corresponding week of last year of 1757 tons, and a total decrease for the year of 23,309 tons.

LEAD.—Prices continue firm, with a present upward tendency, but this is not so much the result of the amount of business doing as of the unwillingness manifested on the part of sellers to submit to lower quotations. It is thought that a change in the character of events may at any moment materially alter the position of the market, and that it is good policy on the part of sellers to wait the turn of the tide.

SPELTHER.—It is hard to say what the ultimate position of this metal may be. For some considerable time it has been very quiet, and the tendency of prices has been downward. There is little or no demand at the moment, and quotations continue as before—Silesian, 17½. 5s.; Belgian, 17½. Hard spelter is quoted at 14½. The stock of Silesian in London on Oct. 1, 1870, was 3107 tons, and on Oct. 1, 1869, 1484 tons.

STEEL.—There are sellers of Swedish hammered keg for arrival at low prices, but there being no demand little or no business has been done. In other descriptions we hear of hardly any transactions, except small contracts for home requirements.

QUICKSILVER.—The present quotation is 8½. 18s. per flask. When the price stood at 6½. 17s. shippers were prepared to risk competition with the Californian mines, but the margin of profit was too small to allow of their continuing to ship when the price rose to 8½. 18s.

TIN.—There are almost daily transactions in very small quantities of Straits tin, at 127½ to 128½. Whether these 5 and 10 ton lots are thrown out to ascertain the feeling of the market, or bought to supply the immediate requirements of the tin-plate trade, it is hard to say, but there is a manifest determination on the part of holders not to sell any large quantity, except at full quotations, in expectation of the probability of higher prices being obtained before very long.

TIN-PLATES.—The demand continues slack, and prices remain unaltered.

THE IRON TRADE.—(Griffiths' Weekly Report).—We have no change to notice in the iron market this week. Orders for large quantities are scarce, and enquiries for large parcels are seldom made. It is true that this is the most inactive quarter of the year; nevertheless, the present dormant state of the trade must be attributed to special causes, referred to in our last report. The rail mills are generally engaged on contracts for the northern ports of Europe, but as the shipping season will very soon close, even by steam-vessels, it is just probable that this branch of the trade may be less active in a month to come. We have no rail contracts of magnitude to report this week, nor can we report any improvement in the demand for bars, or any other kind on the market, since our last report.—*St. Michael's-alley, Cornhill, Oct. 28.*

COPPER TRADE.—Messrs. James and Shakespeare—There is rather more inclination to purchase furnace material, and smelters seem disposed to pay for stuff of good percentage, even the highest figure on our list; importers, however, are keeping out of the market, and we have, therefore, no sales to report. Chili bars are again a trifle dearer, though the business done has not been large. Common brands have sold at 61½ to 61½. 10s., whilst good ordinary marks realised from 61½. 10s. to 62½. 10s. per ton. Urugeta Ingots have been in request for Birmingham, and a fair quantity purchased by consumers there; but the terms of the various transactions have not transpired, the contracts being generally the subject of special negotiations. On the 22nd inst. telegrams came to hand advising charters in Valparaiso during the first fortnight of September last for only 200 tons of copper, in regular; in the same period of 1869 the charters were 257 tons, in bars. Australian remains without change, no sales being reported during the past week. For English raw sorts there is a tolerably good demand, but manufactured continues exceedingly dull, and there is nothing doing for export to the East, which is the principal outlet for sheets.

Messrs. Vivian, Younger, and Bond—A considerable disposition to make purchases in the more speculative descriptions of this article has shown itself during the past few days. This feeling has, however, almost disappeared as we write, owing to the impossibility of inducing the holders of such copper to name any price to the would-be buyers. The demand on English associated smelters for copper at their official quotations has been very small indeed, but smelters of outside brands of tough and best have done a deal of business at about 20s. under list rates. The accounts from consumers in the provinces and on the Continent do not show any anxiety to buy for the stock. The business reported in Chili bars comprise about 250 tons, at 61½. 10s. to 62½. 10s. and 25 tons at 62½. 10s. per ton. Doubtless at 62½, a very extensive trade might have been done

had owners desired to sell. Some parcels of ores and regulus have been taken at 12s. per unit. Fine foreign has not been much offered, the small business reported being at 69½. 10s. for Wallaroo, and 70½. for Burra Burra.

THE MINING SHARE MARKET has been rather more active this week, with a better demand for Great Laxey, South Carn Breas, Wheal Kitty (St. Agnes), West Frances, Tankerville, Wheal Grenville, Great Vor, East Lovell, and a few others. The settlement of the fortnightly account on Friday showed also that greater activity had prevailed in shares generally. Devon Great Consols, 95 to 105; Cole's winze, on the south lode, sinking below the 130, has improved, and worth for the length carried (9 feet) 10 tons, or 60% per fathom. Chynoweth's winze, below the 106, on the new south lode, is worth 100% per fathom. West Chiverton, 53 to 55. Tankerville shares have been firmer at 14½ to 15; the mine sold on Wednesday 75 tons of lead ore, at 12½. 5s. 6d., worth 920½. 12s. 6d., the produce of twelve days' sampling.

South Condurrow, 3 to 3½; the present prospects of this mine, which are of a very favourable character, have been much discussed of late, and more so in consequence of an advertisement conceived in a very offensive style, and published in the *Mining Journal* of Saturday last, as well as in the local papers. No signature is attached to the advertisement, and the anonymous writer attributes the late fall in the price of the shares to the "unscrupulous" operations of the market in heavy "bearing" transactions, and consequent unfair depreciation of the mine by interested parties. It was kind and very considerate of this "Gentleman in Cornwall," who, of course, was perfectly disinterested in the matter himself, to caution his brother shareholders against such practices, if they really existed; but we are reminded, on the other side of the question, that there are such things as "bulls" as well as "bears," and that the financial statement of the mine presented to the meeting, and which, of course, was well known to many persons in London some days before the meeting took place, sufficiently accounted for the fall in price and the discomfiture of the "bulls." Of the good prospects of the mine we have not heard two opinions, but the accounts are not such as were expected; in fact, upon the expectation of a dividend large purchases, it is said, were made in Cornwall, thus causing the price to advance, only to recede again, when there was no dividend to declare; and the accounts, when investigated, showed a debt which the profits at their present rate will take a long time to clear off. This debt, it is owing to one of the evils we have long exposed in this place—that of keeping costs back; they are brought down to July only, while the tin sales are credited down to Oct. 19, a day previous to the meeting; and for this reason, and to meet the outlay of 1300%, per month, the merchants' accounts have to be kept heavily in arrear. This state of affairs, then, without reference to the state of the mine, which is highly favourable, is considered sufficient to account for the fall in shares, without the unfairness so strongly imputed by the "Gentleman of Cornwall."

Bedford Consols, 2 to 2½; Bedford United, 20s. to 30s.; Caldbeck Fells, 20s. to 22s. 6d.; Chiverton Moor, 2½ to 3.

Great Laxey, 18 to 19. From the report presented to the shareholders we learn that the main engine-shaft is now down 4 fms. below the 220, lode in the bottom of shaft worth 60% per fathom. The 210 has been driven 5½ fms. through a lode varying from 100% to 150% per fathom; present end worth 100% per fathom. Dumbell's engine-shaft is down 5 fms. below the 155, and lode worth 50% per fathom; 155 end worth 30%. This end has 8 fms. further to drive to get under a dump come down from the 140, which is worth 90% per fathom. The aggregate value of the different points of operation in the mine, according to the report, is 935½. per fathom. Ding Dong, 18 to 19; Drake Walls, 21s. to 23s.; Dolcoath 125 to 130; East Caradon, 4½ to 5½; East Pool, 9 to 9½; East Grenville, 2½ to 3.

South Carn Breas have been in request at 14½; the lode in the bottom of the shaft is worth 20% per fathom for copper ore, and the slope in the 120 east is worth 15% per fathom. East Lovells have been flat, and receded to 24½; Frank Mills, 37s. 6d. to 42s. 6d.; Great Wheal Vor, 7 to 7½; Gwydyr Park, 4 to 5; Herodfoot, 4½ to 4½; Hingston Down, 12s. to 14s.; Holmbush and Kelly Bray, 5s. to 7s. 6d.; Marke Valley, 6½ to 7; Nangiles, 1½ to 1½. Great Retailack, 20s. to 25s.; at the meeting the accounts showed liabilities over assets of 632½. 7s. 5d., and a call of 4s. per share was made. The ground in the cross-cut, towards the blende lode is becoming better and easier, and it is hoped the lode will be reached in two months. In the meantime other operations are to be suspended. North Trekerby, 4s. to 6s.; Penrhyn, 2 to 2½; Plymmon, 2 to 2½; Prince of Wales, 11s. to 13s.; Providence Mines, 38 to 39; South Frances, 30 to 32; Spear Moor, 19 to 21; Tan-yr-Alit, 2 to 2½; Tincroft, 4½ to 4½; Van Consols, 1½ to 2½; West Basset, 5s. to 10s.; West Caradon, 15s. to 20s.; West Frances, 31 to 33; West Maria and Fortescue, 30s. to 35s.; West Pant-y-go, 4 to 5; West Seton, 120 to 125; Wheal Agar, 1½ to 2; Wheal Crebor, 10s. to 12s. 6d.; Wheal Grenville, 37s. 6d. to 42s. 6d.; Wheal Jane, 55 to 60; Wheal Kitty (St. Agnes), 8 to 8½; Wheal Mary Ann, 8 to 9; Wheal Seton, 35 to 40; Chontales, 12s. to 14s.; Don Pedro, 2½ to 3; Frontino and Bolivia, 7s. to 8s. 6d.; Pacific, 1½ to 1½; Taquaril, 51s. to 53s.

The Market for Mine Shares on the Stock Exchange during the week has been more active than for some time past. Vans have been largely bought for investment at 60. The mine at all points is looking better than at any previous time. The course of ore in the 45, or bottom level, is of much greater value than in the 30, and the 30 is much richer than the 15, showing a very rapid improvement as depth is attained, and the course of ore continues unbroken in the explorations both east and west, and the reserves are being increased in a ratio of about ten times the returns: 400 tons of lead ore has this week been sold, and 100 tons of blende. Taquaril has further risen, and are last quoted at 38s. to 40s. prem. Sweetlands have been dealt in to a considerable extent at 2½ to 3. The advices received this week are confirmatory of the late improved advices, and a remittance is due which will enable the directors to declare a 4s. dividend. Tincrofts have further advanced to 45, 47. Don Pedros have declined to 2, 2½ prem. Cape Coppers firm at quotations of 8 to 8½ prem. East Lovells have fallen to 24, 24½. Tankerville, 14 to 14½; the latest advices from the mine are very favourable. Devon Great Consols maintain the late rise, and the discovery on which shares have risen is said to be looking well; price, 100 to 105. Subjoined are the closing quotations:—Asheton, 4½ to 5; Tan-yr-Alit, 2 to 2½; Van Consols, 1½ to 2½; Caegynon, 1½ to 2; East Caradon, 4½ to 5½; Great Laxey, 18 to 18½; Gwydyr Park, 7 to 7½; Marke Valley, 6½ to 7; Van, 59 to 61; West Chiverton, 53½ to 54½; Wheal Seton, 35 to 37½; Almada, 4½ to 5; Chontales, 4½ to 5; Eclipse, 4½ to 5; General Brazilian, 3-16ths to 1-16th dis.; Pacific, 1½ to 1½; Pestarena, 4½ to 5; Port Phillip, 4½ dis. to 4½ prem.; St. John del Rey, 23 to 24; Yudanamutana, 4½ to 5.

The **SOUTH AURORA SILVER MINING COMPANY** have received advices from Mr. Melville Atwood confirmatory of his previous report made in March. Mr. Atwood states that the workings since March have developed bodies of rich ore, particularly in the centre of the claim called the Aurora Chamber, whence at the time of his visit they were selecting and sacking some ore which would pay from \$900 to \$1000 per ton. A sample which he took from the different sacks gave 1254. The mine presents the appearance of an immense quarry, 1000 ft. high. The accompanying results of the workings of the mill to the end of August were furnished by the secretary, since then the bullion shipped with exceeding regularity from April 25, and by the pulp assays 85½ per cent. has been obtained from the ores. The daily yield of the mine is upwards of 100 tons. The wire tramway will enable the ore to be delivered at the mill for 50 cents the ton. The mill was stopped on the 15th for repairs, and went to work again on Oct. 1, after which time Mr. Atwood looks for larger returns than have yet been made from the mine.

The **PLUMAS GOLD MINING COMPANY** are inviting applications for 3349 unissued shares. The property is situated in Round Valley, Plumas county, California. It is provided with mill, machinery, water-power, &c. During the last two years the net profits have amounted to 1000% per month, but it is calculated that when the arrangements for letting the water are complete that source of revenue will yield nearly an equal amount. Prof. Vincent, of the Geological and Royal

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Higginson, Liverpool, we learn that the quantity of coal exported in September:

ON SALE, 18-horse power PORTABLE ENGINE, with reversing gear, suitable for winding. ONE 12-horse PORTABLE ENGINE. ONE 8-horse PORTABLE ENGINE. TWO CLAY-GRINDING MILLS, revolving pans, 9 ft. diameter; solid cast-iron rollers, iron frames, complete. These are very massive mills.
Apply, **HENRY PARKINSON, 44, Folds-road, Bolton.**

NO SALE on Thursday last, October 27.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday next—Mines and Parcela.—West Wheal Seton 310—East Wheal Grenville 256—East Pool 19—West Wheal Basset 143—South Wheal Frances 138—West Wheal Damsel 119—North Downs 112—Poldice 76—Mellaneur 76—Copper Hill 35—Wheal Prosper 32—North Pool 25—Wheal Buller 17—South Dolcoath 11.—Total, 1543 tons.

NO SALE on Thursday week, November 10.

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

SIR.—It would interest many of your readers if some of your meteorological correspondents would answer the following:—What is a safe and what an unsafe reading of the barometer in a mine at the depth of 100 yards (or say the average depth of our Staffordshire coal mines)? I have often heard this question asked, when no one present seemed in a position to answer it; and as atmospheric pressure is said to have great influence on the explosive gases in mines, it is no doubt important to know at what pressure they begin to show symptoms of danger?

DYNAMITE, OR GIANT POWDER.—“D. R. W.” (Montreal).—We believe all American rights are in the hands of a commercial firm in the United States; but every information can be obtained of Messrs. Orlando Webb and Co., of Carletonville, who are the chief representatives of the inventor.

LEAD-SMELTING FURNACE.—“R. S.” (Cumberland).—We have not heard of any of Mr. Metcalf's furnaces having been erected in England, but many applications concerning them have been sent to us. The inventor is using them at the Pertusella Works, near Spezia, Italy, and obtaining excellent results. It is promised that details shall be forwarded without delay.

PEAT.—I understand that a prize of 100l. has been offered by some nobleman connected with Ireland for the best practical mode of treating peat, and wish to obtain his name.—W. A.

FURNACE SLAGS.—Can any reader of the *Mining Journal* state the weight of coal required, on an average, to melt 1 ton of furnace slag? It is to be understood that I do not mean the complete liquefaction, but only the rendering of it sufficiently fluid to permit of its moulding into slabs or columns; also, the average weight of the slag per cubic foot.—D.

SOUTH CONDERROW.—Has not our committee, by the accounts submitted at the meeting last week, rendered themselves liable to a penalty under the Statutes Amendment Act? The accounts submitted show a credit balance; whereas, if the costs were charged up, there would be a heavy debit. The tin was credited up to date, but the costs not later than July.—A. SHARROLD.

ANALYSING AND SURVEYING.—“Subscriber” (Aberystwyth).—Metcalf's Manual of Assaying, published by Messrs. Longmans, and “Newell's Handbook of Chemical Analysis” (a cheap book, about 12s. 6d.), are the best calculated to meet your views. For surveying, Budge's *Miners' Guide* (Longmans), and W. D. Haswell's *Surveying* (Atchley). There are some excellent remarks on the subject, as applied to collieries, in Mr. Hyslop's *Colliery Management*, noticed in last week's *Mining Journal*.

THE DIAMOND FIELDS OF SOUTH AFRICA.—The authority for the article upon this subject, by Mr. Henry Hall, F.R.G.S., extracted from the *English Mechanic*, and published in last week's *Journal*, was inadvertently omitted.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, OCTOBER 29, 1870.

FURTHER BOILER EXPLOSIONS.

Since the 24th ult., when we last discussed this subject, the inquiries have been concluded upon the deceased who had lost their lives by the explosion of a boiler at the iron works at Walker, Newcastle-upon-Tyne, belonging to Messrs. BELLS, GOODMAN, and Co., and upon those likewise who were killed by the accident to the boiler at the ironstone pit of the Chatterley Iron Company, at Tunstall, in North Staffordshire. Unhappily, since that date there have been no fewer than six other explosions of boilers at different parts of the kingdom, all of them terminating fatally. In noticing the first two mentioned explosions, we expressed a hope that the investigations which had at that time been begun, and which we promised to watch to the close, would result in information being forthcoming which would assist the country to arrive at a satisfactory conclusion, in a somewhat more sensible degree than has hitherto marked investigations of this character. The examination of the Newcastle boiler, which it will be remembered was a plain cylindrical egg-ended, 27 ft. long by 6 ft. diameter, made with longitudinal seams, showed that there was neither the usual wasted plate nor old crack, which had afforded a ready clue in many similar cases, but that the plates were of a nearly uniform thickness, and of an average quality. In one place only did there appear to be brittleness, and that was at the outer lap-plate of a seam exposed to the action of the fire. Objection has been again and again taken in the *Journal* to boilers being made with continuous seams running from end to end. There can be no doubt but such boilers are much less safe than where the seams are intercepted, and very much less so than in cases where the seams are diagonal. Happily, new boilers are not now made with continuous seams, although bad repairs too frequently produce such sources of danger. In this case, however, though the boiler was originally constructed with seams running from end to end, the rent had not been carried along the seams, but had, with the exception of one length of 6 ft., been altogether across the plates. The boiler gave way at the point near the end of the cross seam and the straight seam, where the plate was deteriorated by the action of the fire upon the outer lap of the seam; but the deterioration was not so much as to have caused apprehension of danger with the working pressure employed; this was about 35 lbs. to the square inch. Two pieces of the boiler were cut off at the burnt lap, and submitted to test at the Consett Works. The experiments left no doubt that the tested plates had been rendered hard by the action of the fire. One strip had evident marks of fire, showing the plate to have been heated in places, as if protected by internal incrustation. Another strip was cracked in places about the riveted holes, showing similar action.

The plates seem to have been of good quality originally, though in one portion it was clear, from the visible lamination, that the welding of the piles had not been so complete as is necessary to make thoroughly sound iron. There appears to have been nothing in the experiments, *per se*, to account for the explosion, for while the least strain borne by the plates was 7 tons 18 cwt. on rather less than 14 inch in the width of the strip, the force represented by the pressure of 35 lbs. on the square inch, distributed over the whole of the ring of plates of that width, would be 429 tons, or 353 tons upon 1 inch in width. But in following up these figures, and adopting the accepted rule of Sir WILLIAM FAIRBAIRN, a probable solution is arrived at. Sir WILLIAM lays down that a single rivet seam is only half the strength of the plate itself. In the case of one of the plates tested the strength, as shown, was only 8 tons. The strength of the seam would, therefore, be only 4 tons. With a load on the plates of 429, it would appear that the force and resistance were so nearly balanced that a slight excess of force would readily overcome the resistance. At the same time, on comparing some pieces of the plate from the seam with that in the body of the plate, it was readily observed that the former had suffered more from fire than the latter. It was, therefore, to be assumed that the seam gave way under the ordinary pressure, without any necessary cause. There had been a theory that there was over pressure, but the facts adduced leave no room for the supposition. The deterioration of plates is difficult to deal with in general terms; many plates, to all appearance sound, are hard and brittle, and being apparently good, and of full thickness, pass as being trustworthy. As trustworthy the plates in this case were passed. The explosion, and the consequent death of four men, with the considerable destruction of property, arose out of the failure of one or both of the plates tested, in consequence of the iron having been burned, and the boiler being so large in diameter.

Partially to the same cause is owing the explosion of the boiler working the ironstone pit at Tunstall, by which three men were killed. This boiler, too, it will be remembered, was of the ordinary cylindrical shape, and was one of eight, part of which, however, were Lancashire flue. It ruptured at the fifth circular seam from the front end, where it had been repaired. An extensive fracture had existed previous to the explosion, and the leakage had corroded the plates and rivet heads. Similar patches existed on the left-hand side, between the third and fourth rings of the shell. Several plates over the fire had also been renewed from time to time, on account of fractures. Three of the seven unexploded boilers had undergone similar repairs, and it is a fortunate circumstance that only one of the four thus deteriorated exploded. The violent death of this one boiler has been ascribed to the ensuing three complicated diseases:—1. Overheating of the plates, owing to accumulation of deposits, consisting of carbonate and sulphate of lime, which was present in large quantities.—2. Sudden con-

traction of the overheated plates, owing to the feed-water being delivered cold directly upon the bottom of the boiler.—3. Overstraining of the boiler, owing to the objectionable practice of blowing off the water under pressure preparatory to cleaning, before the surrounding brickwork has had time to cool. This custom causes the underside of a boiler to expand and become elongated by overheating, and on cooling is subjected to an excessive strain from contraction, a process which, frequently repeated, results in fracture. Unless remedies were applied it seemed probable that one or more of the other boilers might quickly be destroyed from the same combined causes. The remedies were simple:—1. Better water, or, if that is impossible, collecting vessels, or scumming apparatus, to prevent the accumulation of deposit on the plates exposed to the fire.—2. A feed-pipe which would deliver the water horizontally, about 2 ft. from the bottom of the boiler.—And, 3. The water should not be run off until the brick-work has become cool. The boiler was examined by a boiler maker, and found to be “in a satisfactory state,” about a fortnight before the explosion. The proprietors are now wisely using rock water, like that which is being served to the railway locomotives of the district.

We sketch in the order of sequence the six accidents that have happened in the month. On the 4th inst. a 3-horse power boiler exploded in Liverpool, at the small foundry in Grey-street, Everton, occupied by Messrs. PARRY and DUKE. A youth and a child were killed, and there was a great destruction of surrounding property, for the foundry is in a densely populated locality. A joint report by Mr. ANTHONY BOWER, C.E., of the firm of FORRISTER and Co., Vauxhall Foundry, Liverpool, and Mr. LIVINGSTON FLETCHER, C.E., chief engineer to the Manchester Steam Users' Association. The boiler was an old one, and had passed from hand to hand. It had been at work 34 years at Messrs. PARRY and DUKE's foundry. Before that time it had been lying in a yard as a castaway for some considerable time, exposed to the weather. When set to work it was miserably equipped, there being not even any means of supplying the boiler with water when the steam was up. There was serious external corrosion, reducing the plates to 1-16th in. thick. This led to a rupture, which went the whole length of the boiler. The scientific evidence further revealed a state of things in Liverpool, as no doubt existing in other large towns, from which the Town Council of that port have taken alarm, and have memorialised the Home Secretary, for it was made known that boilers only a little, if any, better are sometimes set under the public pavements, and sometimes, as in this case, behind walls close to which the public walk. On Wednesday a reply from the Home Secretary was received in Liverpool, informing the Coroner of that borough that the Government will probably legislate as soon as possible on the subject of boiler explosions. Meanwhile, two of the firm who owned the boiler in this case stand committed on the Coroner's warrant charged with manslaughter. On Wednesday, last week, a boiler exploded at the iron works of Messrs. NASH and Co., Smethwick, near Birmingham, killing one man. The boiler was a two-tube Lancashire, 24 ft. long by 7 ft. diameter, and 2 ft. 6 in. diameter tubes. The water was down 8 in.; hence the top of each tube was injured, and the side of the left tube collapsed, and ruptured sideways with moving the boiler. On the same day a boiler collapsed at the works of Mr. JAMES HALL, buckle and chain maker, Wall-sall, by which also one man was killed. The boiler was a one-tube Cornish, 12 ft. 3 in. in length, by 5 ft. 6 in. diameter, and with a 3 ft. 6 in. tube, very large for so small a shell. The pressure was only 22 lbs. The tube collapsed and ruptured beyond the bridge from a weak seam, that must have been leaking badly for a great while.

Likewise on that same Wednesday, and again killing one man and injuring five, a boiler exploded at the Paris Mine Copper Works, Amlwch. This, too, was a Cornish one-tube, 26 ft. by 5 ft. 6 in., with a 3 ft. tube, and 7-16 in. plates, ten years old, and worked at a pressure of 23 lbs. It was much corroded on the under side, towards the back, and four rings of plates were torn out, the rush of the steam turning the boiler right over. At the rent portion it was badly patched. With reference to the last-mentioned three cases, the description of the injuries, and the statement of the probable cause of the accidents are our own; but we have no doubt that they will be supported by the scientific testimony that will be employed to assist the respective juries. The fifth accident, to which we have made reference, happened at Lamberton, near Berwick, when the steward of the farm at that place was killed by the explosion of a threshing machine boiler.

The sixth explosion was that also of a locomotive boiler; but this time it was a railway locomotive that was destroyed. Last Tuesday evening, when the 440 train out of Sheffield reached the Deepcar Station, the boiler of the engine burst so effectually that some of the plates were blown nearly a quarter of a mile. The driver was killed, the stoker shockingly scalded, the passengers were roughly shaken and much alarmed.

In no one of all the eight cases we have here mentioned was there independent inspection, excepting the first described. That case it will be perceived was of all the most difficult to detect, and thoroughly justified the jury in exonerating all parties—owners and inspectors alike.

COAL MINING, AND ACCIDENTS IN MINES.

As preparations are now being made to ensure the carrying of the Mines Regulation Bill of last session early in the next, with the introduction of a clause having for its object the appointment of additional Inspectors, it is important that every information tending to throw light on the best means which can be adopted to prevent accidents in coal mines should be made public. Amongst those points which immediately bear on the subject may be mentioned the mode of working coal in different districts. We are not aware that any official enquiry in that direction has ever taken place; but we do know that for many months past the attention of the leading members of the Midland Institute of Mining Engineers has been given to it, and several very valuable papers have been read on the subject, and published in the *Mining Journal*, all of them being the result of long practical experience. The object to be attained in the working of the coal, as stated in the papers to which we have alluded, is to ascertain that system which would give the largest amount of marketable coal at a minimum cost, with the greatest security to the life of the working miner. It would appear that in different districts different methods are adopted. In the oldest of our coal fields, in Northumberland and Durham, where the seams vary from 3 to 7 ft., the mode of working is mostly what is known as bord and pillar, and it is shown that in those districts the mortality from accidents in mines is much less than in any other in the kingdom, whilst the quantity of coal raised per man employed is shown to be considerably larger also. It is also true that men who understand the northern system of working find a ready market for their talents; hence in all parts of the country we find Newcastle and Durham men placed at the head of some of the largest collieries, many of them, too, feeling proud in asserting that they commenced work as “trappers” at eight or nine years of age, when even the present limited education of the pit lads was unknown. We have seen those men when in the midst of the dead and the dying, after an explosion, and expecting others, cool and collected, giving their orders, and, by their example and exertions, putting new life into the timid and exhausted in their efforts to save life.

In Derbyshire, Nottingham, Leicester, and Warwick, where the coal will range from 2 ft. 10 in. to 7 or 8 ft., the system generally adopted is that known as long wall. There is, however, much less gas in some of those districts than in many others. In Yorkshire, where the coal is of a very fiery character, and where the explosions from fire-damp have been attended with the most serious loss of life known in the history of mining, several methods of working are adopted, including long wall, bord and pillar, and bank work. There are also different methods, we believe, adopted in Lancashire, where fatal accidents from explosions during the last year have been of a very serious character.

From those few facts it will be readily perceived that much valuable information might be obtained by our leading mining engineers giving the results of their experience as to that mode of working coal in different districts with which they are connected—of course, what would be suitable for one place would not be for another—and where the same seam of coal, the conditions being alike, are worked by two different methods. This would be a valuable addition to what has already been given on the subject. As to the advantages

of different systems, some little information may be deduced from the following table of—

The Quantity of Coal raised per person employed at the Collieries in the United Kingdom last year:—

Northumberland, Cumberland, and North Derbyshire....Tons	364
South Durham	413
North and East Lancashire	368
West Lancashire and North Wales	247
Yorkshire	303
Derby, Leicester, Notts, and Warwick	284
North Staffordshire, Cheshire, and Shropshire	295
South Staffordshire and Worcester	353
Monmouth, Gloucester, Devon, and Somerset	249
South Wales	316
East Scotland	304
West Scotland	306
Average	308

Another very important subject in connection with colliery operations is the best mode of ventilation. We are not aware that any considerable increase in that very important branch of mining education has been advanced of late years, although its importance in many districts is of an almost paramount character. Fan ventilation is by no means new, although of late it has been prominently brought under notice in connection with GIBBAL'S patent. The fan system, however, has been used in several places, and for many years past it has been in successful operation at one of Earl FITZWILLIAM'S collieries, at Elsecar. The subject is one on which much information might be given, and it is to be hoped that it will be more fully enquired into than it has been, with a view to ensuring greater safety to the men working in collieries where quantities of gas are known to accumulate.

Much, however, as has been made by the advocates for the appointment of an additional number of inspectors, and of the fearful loss of life in mines caused by explosions of fire-damp, it appears to have escaped the notice of those persons that the largest number of deaths in our collieries is caused by accidents through the neglect of the workmen themselves, and which in most instances are really preventable. Falls of roof and coal have been the cause of nearly double those which have resulted from explosions. Nearly all the Government Inspectors, in their annual reports, state that the cause of a great many of the deaths in mines is from the deceased “neglecting to set props and sprags.” But the question suggests itself, as has been put by one Inspector, “Was there not abundant room for improvement in the method of timbering?” The subject of ventilation has been frequently mooted and discussed, but that relating to the timbering of the roof is scarcely ever heard mentioned, yet the deaths in connection with it are of daily occurrence in our mining districts. That we have not overrated its importance will be gathered from the following table of—

The Deaths by Explosions of Fire-Damp and Fall of Coal and Roof for 1869:—

	Explosions.	Falls.
Northumberland, Cumberland, and Durham	6	28
South Durham	3	31
North and East Lancashire	3	39
West Lancashire and North Wales	128	45
Yorkshire	1	41
Derby, Leicester, Notts, and Warwick	6	31
North Staffordshire, Cheshire, and Shropshire	7	25
South Staffordshire and Worcester	6	68
Monmouth, Gloucester, Somerset, and Devon	23	37
South Wales	70	63
East Scotland	1	30
West Scotland	4	28
Totals	257	416

Serious as are the explosions with which the country is every now and then startled, still the above figures will show that there are other dangers of a still more fatal character to which the miner, either by his own negligence, or from some most likely preventable cause, is exposed whilst following his ordinary employment. That the figures given for 1869 were not taken because they were in any way exceptional will be seen when we state that the returns for the last three years show that whilst 677 lives were lost by explosions of fire-damp, 1360 persons were killed by falls of roof and coal. Such being the case, it appears that whilst so much is being made of the appointment of additional Inspectors to ensure greater safety in mines by increased ventilation, &c., that those who appear so desirous of securing the miner from danger, would do well to look after the immediate cause of the largest number of fatalities in mines, and save the miner from the results of his own neglect, or the neglect of others.

THE FATAL COLLIERY EXPLOSION NEAR LEIGH.

“It is the unanimous opinion of the jury that JAS. CHARLESON and WILLIAM ALDRED lost their lives by an explosion of gas in the Day-eye Pit, through the negligence of the underlooker, PARR, in pulling down a portion of the bratticing; coupled with that, it is the unanimous opinion of the jury that the system of getting coal so far without cut-throughs is highly reprehensible, and also the generally loose system in the working of the mine.”

This was the verdict of the jury when on Wednesday an inquest was concluded upon the uncle and nephew who were killed by an explosion of gas at Messrs. JOHN FLETCHER and Co.'s colliery, Howbridge, under circumstances to which, so far as they had at the time become known, attention was drawn in the *Mining Journal* of Oct. 15. On that occasion we said that the case demanded the strictest investigation, adding, however, that no one would more rejoice than ourselves if it should ultimately be possible for the jury to return a verdict of accidental death. As we suspected would prove to be the case, it has not been possible for such a conclusion to be come to. On the contrary, the verdict is that of “manslaughter” against WILLIAM PARR, the underlooker of the colliery. Such a verdict will, of course, necessitate other proceedings. But PARR will not be the only person against whom charges will hereafter be brought. Mr. DICKINSON, the Inspector for the district, has intimated that he shall have to hold the owners of the colliery responsible for the breaches of the rules of the Mines Inspection Act, which the evidence has made patent. Mr. DICKINSON specifies the 1st and 2d rules. These are—

“I.—An adequate amount of ventilation shall be constantly produced in all coal mines or collieries and ironstone mines to dilute and render harmless noxious gases to such an extent that the working places of the pits, levels, and workings of every such colliery and mine, and the travelling roads to and from such working places shall, under ordinary circumstances, be in a fit state for working and passing therein.”

“II.—All entrances to any place not in actual course of working and extension, and suspected to contain dangerous gas of any kind, shall be properly fenced off, so as to prevent access thereto.”

The next rule may likewise form the subject of future enquiry. It is:—

“III.—Whenever safety-lamps are required to be used, they shall be first examined and securely locked by a person or persons duly authorised for this purpose.”

With these legal enquiries yet to be instituted the whole affair remains *sub judice*. In this place further comments shall not, therefore, now be made. Elsewhere we draw attention to a state of things in connection with explosions of steam-boilers which it is difficult for people who are careful and experienced in the management of such machinery to imagine can exist: and we are happy to be able to believe that the evidence in the above case will induce similar reflections in the minds of experienced and able colliery managers.

ARISTOCRATIC TRADERS.

Another noble addition has to be made to the illustrious names which are to be found amongst the English Aristocratic Traders. His Grace the Duke of NORFOLK, Hereditary Marshal, &c., has commenced business on his own account as a dealer in coals, having taken to the New Winnings Pits, lately worked by Mr. HUNTMAN, and which are situate near to the town of Sheffield. His Grace has one great advantage over Mr. HUNTMAN, the coal being his own property, so that whilst the former has been a considerable loser, his noble successor will be placed in a position that loss can scarcely take place.

Much of late has been written with respect to the Duke of ARGYLE having two of his sons being brought up to mercantile pursuits, whilst the fact is overlooked that many members of the aristocracy have for years been engaged in businesses of various sorts, and from which they have derived not the least portion of their income. Mining in particular has long been a favourite business with our nobility, and, no doubt, a very profitable one, seeing that, as a rule, they work their own minerals. In Scotland the Duke of BUCLEUGH has several mines, as well as some in Lancashire. In Perthshire the Earl of BRADALBANE works some good mines. The North of England, however, appears to be the favourite resort for our noble colliery

proprietors, amongst whom may be mentioned the Marchioness of WATERFORD, who has a pit near Wooler; the Earl of LONSDALE, Earl VANE, and Earl DENHAM, all work their own coal, the collieries formerly belonging to the Marchioness of LONDONDERRY being amongst the largest in the North. In addition, we have Mr. BEAUMONT, M.P., who married a daughter of the Marquis of CLANRICARDE, and who is, probably, the largest producer of lead in the world, the mines at Allendale and Weardale having a world-wide name. In Yorkshire there are several titled colliery owners, including the Earl FITZWILLIAM, who has three or four extensive pits at Elsecar, and who is also the lessor of the coal at Thornecliffe; and Sir J. L. KAYE, Bart., has the Grange and Flockton Pits at work. Derbyshire has the Earl of CHESTERFIELD and the executors of the late Marquis of HASTINGS; and the adjoining county of Leicester Lord MAYNARD amongst the workers of the coal mines. Earl GRANVILLE in North Staffordshire, and Earl DUDLEY in the South, have several large collieries, and are also largely interested in the production of iron, and from which their revenues are principally derived. The Earl of SHREWSBURY and TALBOT has mines at Rugeley, the Earl of LICHFIELD at Willenhall, and the Earl of DARTMOUTH at West Bromwich. In Wales the Marquis of BUTE is the owner of some very extensive mines, which he works, whilst in other parts of the kingdom the names of Lord SKELMERDALE, Sir STEPHEN GLYNNE, Bart., Sir E. BLOUNT, Bart., the Right Hon. Sir J. PAKINGTON, Sir GREVILLE SMITH, and others are included in the list of those engaged in mining pursuits. In Ireland Lord AVONMORE, Lord CLARE, and Lord MONTAGUE are amongst the names which figure in the list of colliery proprietors. Indeed, we might go even higher, for we find that in the Isle of Man two mines are put down as belonging to the Crown, although we believe at present they are not being worked. We have, however, shown that, whatever may be said with regard to the invasion of the House of Lords by the heads of the Newcastle community, some of the very highest members of that august assembly are to be found in the list of the trading class.

THE NEW MINING INSTITUTE FOR SCOTLAND.

The study of the efforts that have been made in various parts of Great Britain to provide scientific instruction for the workmen connected with the mines certainly does not furnish such evidences of success as could reasonably be hoped for; and if an attempt be made to ascertain the cause of this it will, probably, be traced to the circumstance of too much having been attempted, and of those who inaugurated the projects having been insufficiently acquainted with the precise requirements of those whom it was intended to benefit. Just as it is considered perfection in teaching to be enabled to descend to the mental level of those to be instructed, so it will be found that he who is intimately acquainted with the nature, habits, and thoughts of the working miner is best fitted to supply him with instruction. Thus it is that frequently the less learned man is the better teacher; the instruction he imparts to his pupils may be less complete, but more in accordance with their mental capacity, and, consequently, more capable of application by them to useful purposes. The Royal School of Mines is anything but a success, whilst the mining schools of Truro, Bristol, and Glasgow have long since ceased to exist; the Miners' Association of Cornwall and Devonshire, the only association of the class not supported by the Government remaining, being much in want of resources, although its statistics show that its advantages are fully appreciated by the working miners of the district, and by those who intend to pursue mining as a business in after life.

Now, the proposition of Mr. JONATHAN HYSLOP, to which reference was made in noticing his volume on "Colliery Management" in last week's *Mining Journal*, is essentially to form an organisation much more complete, but somewhat similar in principle, to the Miners' Association of Cornwall and Devonshire, and there can be little doubt that if carefully developed the project will be attended with success. It would embrace the whole of Scotland, and it is not unlikely that a similar organisation for England under the auspices of the Royal School of Mines would at once add to the prosperity and popularity of that establishment, create the men who would become students of the School, and be productive of a vast amount of general benefit. Mr. HYSLOP, with reference to Scotland, remarks that it is not likely that a mining school will again be attempted in Glasgow in view of the recent failure. The support of a central school, he continues, falls upon the circle near it; more distant owners take little interest in it, and students are slow to leave home and reside in town for the purpose of attending it. But he finds that there is, nevertheless, an increasing desire for instruction among present and prospective managers, and it is a pity that this should not be fostered. To meet this felt want, he has sketched out a scheme for an EDUCATIONAL MINING INSTITUTE FOR SCOTLAND, which certainly appears worthy of careful consideration; since economy and simplicity are combined in a remarkable degree, and ample encouragement would be afforded for emulation amongst the members.

The mining districts of Scotland are to be divided into 24 sections, each with a resident committee, to establish a class, composed of managers and others willing to join. The classes are to meet every three weeks for at least two hours, and on alternate occasions read and discuss papers connected with mining. Of course, the object of these papers would be to enable every member to express his individual views upon the particular branch of mining in which he feels most interest, and thus put forward suggestions without the fear of their being appropriated by others. The quality of the papers will be judged of by the sectional committee; and those considered to possess especial interest will be forwarded to the General Council for approval and publication. This General Council is to be composed of one member from each sectional committee, with the addition of the Government Inspectors, and is to be a supreme court of control and reference, having charge of the general fund, authorising the publication of approved papers, and appointing a thoroughly qualified lecturer. This arrangement seems well calculated to ensure the proper representation of all concerned, and to prevent the publication of any but really valuable papers. With regard to the duties of the lecturer, it is certain that Mr. HYSLOP does not propose that an idle man should be appointed; for he is to devote four evenings each week during forty-eight weeks of the year to instructing the classes in turn, for at least two hours; following an open lecture with an examination, test calculations, and suggestions for study during the interval between his visits. In this way each sectional class would receive authorised instruction every six weeks during forty-eight weeks of the year—the visits being arranged according to a printed plan. Now, with regard to this portion of the proposition it may, perhaps, be doubted whether the attendance of a teacher once in six weeks would be sufficient, and also whether any one teacher, no matter how competent, could satisfactorily lecture upon all the subjects that should be treated of. This, however, would be proved by experience, and should the one lecturer, or the lectures once in six weeks, be found insufficient there would be no difficulty in making an additional appointment.

But perhaps the most important matter is the raising of the funds, for it must be admitted that the financial difficulty is by far the greatest that similar associations have had to contend with. Mr. HYSLOP proposes that the funds shall be raised by an annual fee of 10s. from each member of class, which, with an average of 20 members each, would be 240l. The remainder is to be raised by the sectional committees in subscriptions from lessors and lessees, which at 10s. from each colliery, or an average from each section of 10l., would be 240l. more, or 480l. per annum in all—an ample provision, Mr. HYSLOP thinks, for all expenses, and yet very easily borne. Now, the only question for consideration here is whether 20 members could be obtained for each class, for it must not be forgotten that there is not a single class so numerous as the Royal School of Mines at Jermyn-street, and that some of the classes there cannot muster one-third of that number. At the Working Man's College, in London, where the fees are considerably lower, and where they have a full staff of most competent teachers, a class of a dozen would be considered highly satisfactory. And at the Mining Schools in Cornwall, Bristol, and Glasgow the numbers were seldom much greater. For every student educated at the Royal School of Mines the cost to the country is enormous, and the local mining schools, notwithstanding the large amount of extraneous aid they obtained, could not be made to pay their expenses. These facts might probably be

taken as arguments in favour of Mr. HYSLOP's suggestion for lectures at six weeks intervals, and meetings of some kind at intervals of three weeks; and it might happen that after such intervals there would be a freshness about the meetings, sufficient to secure increased interest in them.

There would be a vast difference, again, in the character of the instruction given, for whilst at the Royal School of Mines and similar institutions the student is simply taught that which could be as readily obtained from any recognised text-book on the subject, judging from his book (which may be considered to represent the kind of lectures he would propose, and which are certainly such as would be of the utmost value to those engaged in connection with collieries), the Scottish Mining Institute lectures would be chiefly of a practical nature, just sufficient text-book matter being introduced to prevent sound principles being departed from. By thus adapting the teaching to the requirements of the students the larger number estimated may be obtained, and we may thus be enabled to place the Educational Mining Institute for Scotland amongst the more important associations of the kind in the kingdom.

COAL FOR THE ROYAL ITALIAN NAVY AND RAILWAYS.—We understand that the eminent firm of A. Centurini, Genoa and Naples, has recently concluded with the Italian Royal Navy and Railways some important contracts for Newcastle and Cardiff coals.

Coal, in the form of Dust, is now used as fuel, being carried into the Furnace by Blast, and it is stated that the blast itself can turn a rotary engine or apparatus, which communicates sufficient power to work the dust feeder.

STEEL.—The exports of unwrought steel from the United Kingdom in August amounted to 3136 tons, against 2712 tons in August, 1869, and 2444 tons in August, 1868. In the eight months ending Aug. 31 this year the aggregate exports amounted to 22,913 tons, against 21,715 tons in the corresponding period of 1869, and 18,521 tons in the corresponding period of 1868. The exports to France to Aug. 31 this year amounted to 2112 tons, against 1950 tons in the corresponding period of 1869, and 1667 tons in the corresponding period of 1868. The United States took 10,419 tons, against 11,068 tons and 9522 tons respectively. The value of the unwrought steel exported in August was 95,434l., against 77,924l. in August, 1869, and 77,450l. in August, 1868; and in the eight months ending August 31 this year 725,047l., against 676,643l. in the corresponding period of 1869, and 602,521l. in the corresponding period of 1868. This branch of our exports would appear, then, to be steadily extending.

NEW ARTIFICIAL LIGHT.—The Phillips carbo-oxygen lamp, which is already known (at least, by name) to most readers of the *Mining Journal*, is at present attracting much attention in America, the cheap production of oxygen being all that is required to ensure success. Cheap oxygen, it is believed, can be obtained by the process of compressing air through water. This idea of dissolving out the oxygen by water is not new, but has never been carried out on a large scale. It has been explained by Roscoe that when air is shaken up with a small quantity of water some of the air is dissolved, and that the dissolved air, when separated by boiling the water, is richer in oxygen. The oxidised air can be further and further purified by repeating the process, until at last a gas containing 90 per cent. of pure oxygen is obtained. It is suggested that this may ultimately prove to be the cheapest method of manufacturing oxygen. The advantage of this in connection with such lamps as that of Phillips is apparent, the cost of the oxygen being the chief cost of burning the lamp. The wick of the new lamp is of non-combustible material, probably asbestos, and oxygen is supplied from a reservoir from a peculiarly constructed apparatus. The flame is made to assume the form of a star, and any heating of the wick-holder is prevented by the manner in which the oxygen jet is permitted to feed it. It is said that the wick requires no trimming, and explosions are impossible, as the oxygen does not in any way mix with the gases that might be produced by the heat of combustion. The light of a lamp consuming 5½ cubic feet of gas per hour is equal to that from 90 or 100 candles.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Oct. 27.—The iron works and collieries in Derbyshire are in about the same state as regards trade as in last notice, there being a gradually improving demand for Coal for household purposes. A want which has long been felt in some of the lead mining districts is about to be supplied. A company has been formed for making a line of railway, about 13 miles in length, from the Midland station at Has-sop, crossing the Derwent near Froggath, and proceed along the Hope Valley to Castleton. Several lead mines and other important works will be much benefited by the line, and there will be a greater development of the former in consequence. Indeed, the mines at Hucklow, Eyam, Castleton, and other places, have long been placed at a great disadvantage from the want of railway accommodation, and the lessors and lessees of the minerals in the district through which the new line passes cannot do otherwise than promote in every way an undertaking which ensures to them those facilities of transit which has placed them at such a serious disadvantage when compared with other districts. The coalowners on the Midland will also be benefited by the line, whilst tourists, who delight in scenery, picturesque or bold and rugged, will be enabled to pass through a district by railway remarkable for all that can please the eye. As a speculation alone, there can be no doubt but the line will well repay those who have promoted it, and who, we understand, include the principal landowners and others interested in the prosperity of the districts through which it will pass.

The heavy branches of the Sheffield trades are still active, so that the war has in no way affected them, unless in some instances to improve them. Powerful armour plates for ship purposes, and for land batteries, are being largely produced, whilst there is every appearance of a long season of activity in the same line. Railway material, including locomotives, rails, springs, buffers, and wheels are also in brisk request. There is no change in the Rotherham district, where a steady business is being done. At Elsecar, two of the furnaces on Siemens' patent have been at work, and have given every satisfaction, whilst the others, it is expected, will shortly be completed, and so increase largely the make of puddled bars. The works at Chapel-town and Thornecliffe are kept well going, some large orders being in hand for foundry material, more particularly pipes, gas tanks, and similar goods, for which the firm has a high reputation. The collieries are also very busy, there being a larger number of men employed at them just now than there ever has been.

The reduced rate by the Manchester, Sheffield, and Lincolnshire Railway for coal going to London by way of Retford has as yet scarcely got into the required groove, and a hitch took place at starting, but during the last two or three days the traffic has been sent along smoothly. It appears that whilst the company reduces the rate by about 1s. a ton, the coalowners reduce their prices in London to the same amount, so that they are in a position to compete with either the North Country or the Derbyshire collieries. Nothing as yet has been effected with a view to sending coal by screw-steamers from Grimsby to London, but one of the best authorities on the subject, and who has long been connected with the trade as a shipowner and merchant, and who is now a very large colliery proprietor, is of opinion that the scheme is one that will not only work well, but profitably. Steam coal is not in such request as it has of late been, and there is every appearance of the shipping trade to the North of Europe being speedily closed, as the demand recently has been rather spasmodic. During the last two days, however, the quantity on the line at Grimsby was very small, in comparison to what it has been up to a week since. Engine fuel is in moderate request for the Manchester district, and for Glossop and Stalybridge. Coke is in brisk demand for the iron works in Lincolnshire and other places.

The inquest upon the bodies of the two men who lost their lives by the explosion at the Day-Eye Pit, near Leigh, has resulted in a verdict of manslaughter against the underlooker, T. Parr, the jury finding that the explosion was caused through his negligence in pulling down a portion of the brattice, and also that the system of getting coal so far without cut-throughs is highly reprehensible, as well as the generally loose system in the working of the mine. It was proved, in evidence, that lamps were given out from the office unlocked, and, although the use of unlocked lamps was prohibited, men were allowed to fire their own shots, although their places had shown gas; and a spade which

had been used as a danger signal, by chalking "fire" and the date upon it, was so placed that it was found under a tub, and only when it was looked for, because it was wanted.

Mr. JOSHUA JEAVONS, of the Atlas Steel and Iron Works, has just been presented with a handsome testimonial, consisting of a beautifully designed timepiece, and two elegant Sevres china vases to match. A silver shield in front of the clock bears a suitable inscription, stating that the presentation was made by the employees of the works on the occasion of his retiring from the management of the iron department. Mr. Jeavons commenced his career under Messrs. G. B. Thorneycroft and Co., of Wolverhampton, and for the last five years he has superintended the iron department at Sir John Brown and Co.'s works, at Sheffield, and is now about to commence business on his own account at Millwall. Mr. Jeavons has patented a plan of producing bent armour and battery plates of any desired form at a much smaller price than usual, yet of equal or even superior quality. The rolling-mills at Millwall have already some extensive machinery, but to enable him to carry out extensive Government orders, where there is a limit of time, an additional mill (by Messrs. Claridge, North, and Co., of Bilston) will be put up, the housings of which weigh 21 tons each, and the rolls upwards of 18 tons each. Mr. Jeavons has the best wishes of all in the district.

REPORT FROM SCOTLAND.

Oct. 26.—In the absence of speculation the Pig-Iron market is without much variation, although there is a good business being done with melters, and for export to North and South America, and north and south European ports. A considerable extra trade is also being established between the port of Ardrossan and South Wales. During the week the foreign shipments amounted to 9657 tons, and the coastwise to 4641 tons, making a total of 14,298 tons, against 12,541 tons in the corresponding week of last year. These shipments, along with present low prices of warrants, are necessitating deliveries from store of from 200 to 500 tons per day. On Monday the market opened rather improved in tone and price, and yesterday the market closed buyers 51s. 6d. prompt, and 51s. 9d. a month; sellers 1d. per ton higher. Today the market was again steady, and yesterday's quotations were paid for several lots, closing buyers 51s. 6d. cash, and 51s. 9d. a month; sellers 1d. per ton higher. No. 1, g.m.b., 52s. 3d.; No. 3, 51s. 6d.—Makers' Iron: Coltness, 62s.; Gartsherrie, 60s.; Summerlee, 58s.; Langloan, 57s. 6d. (out of store, 53s.); Shotts, 57s. in the Forth; Govan, 52s.; all Eglinton, at Ardrossan, 52s. There is a continued, but scanty demand for Manufactured Iron, showing that the article is required, but that specifications are held back from some unapparent cause, which may be set down as the war, with its unsettled accompaniments. These sustained, though small, orders are keeping the works well engaged, the only exception being a want of demand for plates. The quotations are unchanged. In engineering and foundry work there is a brisk trade doing.

Coals have considerably improved in demand, both for shipping and domestic purposes, and there are pretty sure indications of an advance being made at the beginning of the month. The foreign and coastwise shipping of the week amounted to the large total of 34,755 tons, against 28,865 tons in the same week of 1869. The miners are all engaged, and we hear of no strikes. Mr. William Merry Gilmour, coalmaster, Wishaw, of the firm of Scott and Gilmour, coalmasters, of Wishaw and Glasgow, was sequestrated on Feb. 4, and discharged on Oct. 3, by consent of the creditors, without composition, the estate remaining in the hands of the trustee for division. The going colliery of Maxwood, near Galston, belonging to His Grace the Duke of Portland, and the remaining coal and roughband ironstone and fire-clay at Cleland, near Motherwell, are both in the market to be let.

On account of the uncertainty of the weather, and the shortening of the day, the Clyde shipyards are rather quieter, with less business going forward during the winter months, and consequently a diminished consumption of iron. During the week there was launched a screw-steamer of 1500 tons, for J. A. Dunkerly and Co., Hull. She was named the Tiber, in the usual way.

SCOTCH PIG-IRON WARRANT STORES.—A correspondent in last week's *Journal* complains of some remarks on the Canal Company's facilities for delivering pig-iron stored with them, and asserts that "iron is as cheaply delivered to the warrant holder from it to any point of the city as from the other stores; and indeed, in some instances, delivered at points not included in the other's list." It was mentioned that the Canal Company's store was situated in an extreme corner of the city, and I have no doubt that it may give facilities for delivery in the neighbourhood of that extreme corner which the other does not; but will "Credo" establish, by any reliable evidence, that generally the Canal Company provide as liberal facilities for delivery over the whole city as the Messrs. Connal? Is it not a fact that some makers of g.m.b. will not deliver at the Canal Company's store unless at an enhanced price to the buyer? Is it true that "the proximity of the store to the point of delivery does not abate one farthing of the charge? On enquiry, I find that if the iron is removed in scows from the Canal Company's store they "abate" 4½d. a ton; and that if it has to be delivered in (say) Hutchesontown or Little Govan they add to the charge, or will not deliver at all; and in some cases they have to be gently pressed into delivery without adding to the cost. We have even been told by one merchant that he had to exchange his warrants with another for similar iron held in Connal's stores, to save the extra expense of cartage. "Credo" will then see that "proximity" of the store to the "point of delivery" is of pecuniary importance to the trade, as a rule, and sometimes "abates" and other times "adds" to the price of the iron.

TRADE OF THE TYNE AND WEAR.

Oct. 27.—There has been a good supply of vessels during the past week, and a large business has been done; the imports of timber, Esparto grass, &c., have been on an extensive scale, and the exports of coal, chemicals, &c., also very heavy. Many vessels have been loaded for the North German ports, the Mediterranean, and other ports, and a large trade altogether is now being carried on—indeed the general trade of the district has not been so brisk for a long period, and it would appear that the stagnation caused by the war has brought a large amount of orders of a certain class here. The business going on at Tyne Dock is quite unprecedented, and the facilities there for import and export, although great, are fully taxed, and additional shipping places are now urgently needed. These, however, are expected to be provided very shortly near the mouth of the Tyne on the south side; and with respect to the north side, although business is not quite so brisk there as it is on the south side, yet the old scheme for the formation of docks at the Low Lights has been again revived, and although not backed very generally, it certainly has some good supporters. The demand for shipping has been great lately, and consequently the rate of freights, especially for foreign ports, has much improved.

The North-Eastern Railway Company have determined to continue the shore line down the north side of the Tyne, so as to provide fully for the wants of the extensive shipbuilders and other manufacturers in that district, and they also project a new coast line of railway from Sunderland, commencing with a bridge over the River Wear, and proceeding by way of Seaham, &c., to Hartlepool and Middlesbrough. No doubt this line will, at no distant date be formed, as the mineral trade of the district urgently requires it. As a rule, colliers were never better employed than at present in Durham, and at many places, especially at the extreme edge of the coal field, men are getting somewhat scarce. The great demand for coke keeps the coking collieries at full work. The trade is scarcely so brisk in Northumberland, although a good business has been done there lately, and the time is now approaching when large heaps of coking coal are accumulated, which are generally got rid of when the trade opens in the spring.

The Iron Trade continues in most branches very brisk, there being a good demand for most kinds of iron, with the exception of rails and some other kinds of finished iron, and much anxiety is felt for rail orders, especially for the ensuing year. The movements of the men also cause much uneasiness, and at present some fears are entertained that they will upset the system of arbitration, which has only had as yet a very short trial, although it must be confessed that some success has attended the system in many cases. Engine-builders, boiler-builders, and foundry works, &c., are busily engaged. Most of them have, indeed, orders on hand sufficient for a long time to come, and all the manufactory trades are extremely busy. The Chemical Trade on the Tyne continues to advance steadily, there

being a good demand for all their productions. The new bridge over the Tyne at Newcastle is now rapidly approaching completion; the massive centre pier has been completed. The new bridge at Redheugh is also nearly completed, and will be opened in a short time. Shipbuilding continues brisk on the Tyne, Wear, and Tees, and the demand for ship-plates is good, the new lines of railway projected by the North-Eastern Company will prove a great boon to iron shipbuilders, especially those on the Tyne, as plates will be conveyed direct from the works where they are produced, and delivered into the yard of the shipbuilders, and this is a most important matter, at present the cost of carriage being a serious drawback.

The Central Railway through Northumberland is to be formally opened on Oct. 31. This line extends from Scots Gap, on the North British Railway, to Rothbury, a large village on the Coquet river, celebrated for the beauty of its situation and the salubrity of its air. The railway, although of great importance to the agricultural population of the district, does not at present possess any value with respect to minerals. However, the line passes in very close proximity to the unfortunate iron and coal works at Brenkburn, where a large capital was sunk a few years ago, but owing mainly to the want of railway facilities the enterprise was reluctantly abandoned. It is possible that the opening of this line may lead to the re-opening of these works, as iron ore of excellent quality, and some coal also, is known to exist, and the ground is entirely unworked. The ore will, no doubt, like the Redsdale ore, be rather expensive to work, but the value of the ore is so great as to quite compensate for the extra cost of working it. The Redsdale iron sells readily here at prices far above those received for ordinary brands.

The strike at the Sheriff Hill Colliery still continues, so far as the bulk of the men are concerned; there are, however, a few men at work, and the number is gradually increasing, so that it is likely the strike will die out in that way. The men at present at work are engaged in driving exploring drifts.

MINE INSPECTOR FOR SOUTH DURHAM.—The inspectorship for South Durham appears likely to prove most difficult to settle. It was a short time ago considered to be an arranged matter, it being alleged that Mr. Spencer, of Thornley, had received the appointment; it appears now, however, that this arrangement is not to be carried out, and the office still remains open. There are several candidates for the position, although, owing to the reduction made in the salary, the best candidates have withdrawn; and it really appears to be very odd that the present Government should consider it unnecessary to appoint a first-class inspector for such an important district.

REPORT FROM THE NORTH OF ENGLAND.

Middlesbrough, Oct. 27.—The efforts now being made for an armistice in relation to the hostile nations on the Continent, and the more brightening prospects of favourable results attending the efforts to bring about peace, tended to strengthen the confidence of the iron market at Middlesbrough, on Tuesday, in some small degree. The market was more hopeful of an early settlement between France and Prussia, and, consequently, prices were not quite so easily affected by buyers. Last week's quotations were generally adhered to, makers asking, as a rule, 50s. 6d. for No. 1, and 47s. for No. 3, but a quantity of pig-iron changed hands, at a shade under the latter quotation. Deliveries by sea are good, considering the time of the year, and opposing influences; and the consumption in the Cleveland district, and inland, is not lessened to any great extent as yet. The manufacture of pig metal is well kept up; and notwithstanding the ill effects on trade during the past few weeks, the stocks in the hands of Cleveland makers are expected with certainty to show, at the close of this month, a considerable decrease upon the September returns.

There is more hope among rail makers just at the present moment, and should terms of peace be arranged early there is little doubt, from the purchases that are known to have been made for Russia and America, that makers of this class of iron would be favourably situated for some considerable time to come; as it is, however, those foreign houses that have orders to place are withholding their contracts. Notwithstanding the present state of the trade, rail mills continue in steady operation; plate mills are also regularly engaged. Several launches of new vessels have taken place in the North during the past week or two, but fresh commands to shipbuilders are not numerous. The ironstone mines of Cleveland are in full work, and new mines are being opened out. The Coal Trade of South Durham is steady, while there is a brisk demand for coke. The position of trade generally is little changed since last week; if at all it is, we think, inclined to improvement.

THE CLEVELAND INSTITUTE OF ENGINEERS.—On Saturday, the new session in connection with this Institute was inaugurated by a dinner at the Alexandra Hotel, Saltburn-by-the-Sea. About thirty-five gentlemen sat down to an excellent repast. The President, Mr. Wm. Barrett, occupied the chair, and Mr. David Joy filled the vice chair.

A meeting of the Cleveland Iron Trade Foremen's Association was held at Middlesbrough on Saturday evening, the President, Mr. J. M. Oubridge, in the chair. A paper was read by Mr. J. SWALWELL, foreman for Messrs. D. Joy and Co., on "Differential Pulley Blocks." Mr. Swalwell said that the subject of his paper was the raising and lowering of weights—a subject that had exercised the ingenuity of mankind in all ages. In the early ages implements for raising and lowering heavy bodies were, like those used in all other branches of industry, of the most simple character. When man began to erect dwellings of convenient size and form, in place of the rude hut or confined tent, the lever was his first instrument brought to bear in moving blocks of stone and beams of timber required for such structures. The rude rope of twisted fibre, or strips of the skins of animals, was also made to aid in these objects, and its combination with the lever in various ways doubtless at length suggested the conversion of the simple lever into the compound lever or pulley, round which the rope might pass, such conversion ultimately leading to other improvements. By some it has been supposed that the ancient Egyptians, in the erection of their buildings, including those wonders of the world the Pyramids, made use of inclined planes only, upon which the blocks required were forced by the aid of levers, or dragged by ropes, and that they were ignorant of the use of the rope and pulley, whilst others have taken it for granted they were in possession of most, if not all, of the contrivances for raising and lowering heavy bodies, which are known to have been used by the Greeks and Romans. Whether the latter is the correct assumption may be doubtful, but Wilkinson, in his work on the manners and customs of the Egyptians, mentions a circumstance which would seem to prove that they were at least in possession of the rope and pulley—this proof being the disinterment some years ago of a pulley having the fragment of a rope adhering to it, the side of this pulley being of Abul or Tamarisk wood, and the roller or middle part of fir, the portions of rope apparently consisting of the fibres of the date tree; this interesting relic, according to Wilkinson, is or was in the museum at Leyden.

But to follow the successive development of the pulley block through all its stages was not his intention, although it might be useful and interesting, but he would confine himself to what is known as the differential pulley block, now in such general use; and he would confine himself to three or four of the most approved forms of such pulley blocks now in general use—Weston's Eade's, Pickering's, and Moor's patents. First, by premising what he considered the essential requisites of a reliable pulley block, which are first to lift the maximum load with the minimum of power; secondly, lifting chains to travel at the same surface speed of the load; thirdly, load to hang centrally with the hook; and, fourthly, to suspend the load safely, also being perfectly free to lower quickly, and under such control that it can instantly be stopped in any part of its descent, those properties not to be affected with any reasonable wear and tear. He then, by the aid of drawings descriptive of four kinds of blocks before mentioned, and two pairs of small model blocks, and likewise a specimen of a worn out Weston's pulley block, very fully described the various details of each separate block under which they acted, showing minutely the details in each. In considering the advantage of each class of pulley blocks that he had had the honour to describe, it was his opinion that the great failing of the "Weston pulley" was due to the speed which the lifting chain had to travel over the sheaves, with the weight hung upon them against the speed of the weight lifted, for instance, in a 20-cwt. block, 30 feet of chain had to pass over the lifting sheaves to lift the load 1 foot high, and 40 feet in a 40-cwt. block, thus throwing an amount of friction, and consequent wear and tear upon them, which is shown by the chains beginning to jam between the stays of the lifting sheaves, and you can neither get them up or down. The wear of the chain has also been very great, and by the specimen of the worn-out block and a piece of the chain, the great defect was fully exemplified. The Eade and Pickering blocks, in which there was a great similarity, he also considered defective, both of them lifting with one chain only, as it throws all the strain on one side, causing them to hang very un-mechanically, and also to lower with a very unsteady jerking motion. Moor's patent, in his opinion, combined more of the elements of a good block than the other three, possessing as it does, the advantage of getting much greater power in the same diameter than any other known block; also having the two lifting chains passing over opposite sides of the block, both chains travelling in the same direction, at the same surface speed as the load; the load being distributed on all parts of the same block, having no fixed parts, each part being free to roll, and the other also being perfectly free to lower, and under such control that the weight can be stopped or left suspended safely in any part of its descent. As to the durability of Moor's block, that was to be tried yet, it not being old enough to test it by years of trial; but he had no doubt that, with proper care, it would last for several years in good working condition.

After the reading of the paper, which was attentively listened to, an interesting discussion followed, during which Mr. Swalwell dissected the models and blocks he had with him, showing particularly the action of each part; the

essayist giving it as his opinion that Moore's block was a decided improvement over any he had yet seen.

A very handsome case of cutlery was laid upon the table. It had been there for inspection before being presented to Mr. John J. Platta, the late secretary of the Association, on his removal to become manager of the Bridge-water Iron Works, near Bristol.

There is a movement on foot to form a Free Library for Middlesbrough. The ironmasters are interesting themselves in the matter, and on Tuesday (yesterday), after the market, a meeting was held with this object in view, in the Royal Exchange, Mr. H. W. F. Bolckow, M.P., presiding, and a committee formed to take the necessary steps.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

October 27.—The Iron Trade of South Staffordshire is now quite as good as was generally anticipated it would be at this season of the year. There is a moderately good demand for most of the ordinary makes of merchant iron, especially gas strip, which at this season of the year is a good deal in demand. There is a steady flow of orders from the United States, and from South Africa and the East Indies the demand is pretty good. The pig-iron market continues dull. For the leading qualities, which, however, are produced in very limited quantity, there is a tolerably steady demand, but the commoner sorts are quoted a shade lower. All mine is now 37. 10s. to 37. 15s. for best brands, and 37. 5s. to 37. 10s. for second qualities; cinder pig, 52s. 6d. to 62s. 6d., and other varieties in proportion. The war, of course, exercises a prejudicial influence, and should the efforts to secure peace which are now being made, and which look the brighter from the capitulation of Metz, be successful, no doubt many orders now held back would be given out, and we should have a fair winter trade.

The Hardware Trades of South Staffordshire are rather better than they were. The last mails from Australia and the Cape brought more orders, and in most branches there is a moderate degree of activity. It is anticipated that Russia will require considerable quantities of heavy ironwork and machinery, railways naturally leading to a demand for superior apparatus for all purposes, from manufactures to agriculture.

The promised visit of the Truck Commissioners to South Staffordshire is exciting a good deal of attention. The practice of paying partly by goods does not prevail very extensively, but several firms keep stores, and do a very large business with their workpeople. Whilst the system is radically bad, and liable to very grave abuses, it is asserted that in many cases the workmen benefit, by securing a genuine article; whilst it is said that the wives and families of drunken men are greatly benefited, drawing goods for their support, and that they thus secure a far larger share of the husband's wages than they otherwise would. Still, it seems that in anticipation of the enquiry, many of these establishments are closing.

The system of arbitration in the Pottery Trades has worked well. Hitherto, however, it has been confined to only a portion of the trade. An appeal has been made by that part of the Board which represents the workmen from the whole of the employed, to subscribe not more than 6d. a year, to constitute themselves members, and to allow the masters to deduct the amount from their wages, adding an equal amount to the contributions of the workmen. The appeal is very sensible and earnest. It concludes—"With you, the working men of the Potteries, the result of this movement rests. It is a choice between a comparatively weak board and a really strong board—perhaps between no board at all, and one that shall live long and be a blessing all its days. You know what this choice means—strife or peace, distrust or confidence, trade struggles or trade prosperity. The bread of the working man is sweeter when eaten in peace than amid discord."

The boiler explosion which took place at Walsall, last week, was the subject of an enquiry before the Coroner, on Saturday, and it was proved that there was a leakage at the rivets, and at a seam over the fire, previous to the explosion, and that a juryman said it had leaked for three months before the explosion, the engineer acknowledging that he put brin into the water to stop the leakage. The enquiry was adjourned for an examination of the boiler. An important case of appeal against the rating of a colliery railway has been decided at the Brierley Hill Police Court. The question raised was whether such railways are rateable at all for poor rates. The overseers rated at 150l. on a gross rental of 200l., but it was shown that a similar railway had been rated at 24l. Mr. Mottram, for the appellant, denied the right to rate colliery railways, but as the railway had been in existence when certain arrangements were made he did not object to its continuance at the lesser sum. The Bench ultimately decided that it should be rated at 39l. upon a gross rental of 52l.

TESTIMONIAL TO CAPT. FREDERICK SMITH.—We noticed some few weeks since the intention of Capt. Smith, the Earl of Dudley's chief agent, to retire from his present position at the end of this year, and that a subscription had commenced amongst the agents, workmen, and others connected with the Earl's mineral estate, in order to raise funds to present him with a fitting testimonial. This movement has been taken up with great spirit, and the result at this time far exceeds all anticipation, the amount realised being nearly 400l., and this will not be all, as the list does not close till the 31st inst. The subscription has been carried out upon a purely voluntary system, and nothing, we think, could be more gratifying to Mr. Smith than the general good feeling with which it has been taken up throughout the whole estate, as it clearly shows the high estimation in which he is held.

REPORT FROM MONMOUTH AND SOUTH WALES.

Oct. 27.—It would be useless to think of ascertaining the real position of the Iron Trade at present by looking at the aspect of things at the various iron-making establishments of the district. A large amount of work has latterly been turned out, and so far as active operations are concerned, there are no evidences of dulness, which would, of necessity, lead to an erroneous conclusion in regard to the actual state of the trade. It shows only the prosperity that attended the trade during the early part of the year. How long this activity can be sustained depends now entirely upon what might transpire in the next two or three months. Although some few of the large Russian contracts are not yet quite completed, it is certain that they cannot last much longer; and unless, therefore, some new business of the usual character can be secured still further dulness and depression are inevitable. For some weeks past no foreign contracts of moment have come to hand, and makers' books are fast becoming empty. Foreign transactions, as regards many of the markets, have, in fact, virtually ceased, and it is impossible to say when this pause will end. Buyers everywhere are withholding their engagements until the issue of the great war is ascertained. The only source of demand which appears to remain open is that comprising some of the Southern American States, but even from these enquiries are each week decreasing, owing to the approach of the end of the year, when transactions are usually wound-up. There is, evidently, a determination on the part of merchants to limit their transactions in all directions as much as possible, so that as long as the war lasts there is no prospect of improvement.

Considerable anxiety is again felt respecting the negotiations for peace, and some slight hope is held out of the efforts being successful. If the desired armistice can be obtained, there will be then some reason to expect that a sound basis of peace will be ultimately agreed upon. A resumption of something like the usual activity in the trade may also be looked forward to, there being no doubt that the demand in some directions would develop rapidly. The numerous extensions and improvements which are being from time to time made in the large establishments of this district render the works of immense capacity, and, of course, contracts of considerable magnitude are required to keep them going with anything like regularity, still there is no reason to apprehend that the orders which will in future be given out on various accounts will be inadequate. During the past week the shipments of iron have been unusually small from the local ports. Business in the home branch of the trade is tolerably active, and the small orders given out by the home railway companies serve to fill up the vacancies, in a measure, caused by the suspension of foreign transactions. Prices, however, show a tendency to recede. In the Tin-Plate Trade there is nothing fresh to note at present, business continuing dull, and prices remain unremunerative.

The Steam Coal proprietors of the district have latterly had more to complain of in regard to the weather, and the interruption caused to shipping operations, than of any lack of orders from the principal foreign markets. Very large clearances would have been made during the last week had it not been for the heavy storms, which prevented the due arrival and departure of ships at the local ports, and the collieries would consequently have been kept in much better employ. There is but little fresh to note in reference to the demand, the orders on the books being sufficient to keep the pits on nearly full time. The improvement in the House Coal Trade is well maintained,

and the purchases, both on local and coasting account, are likely to show a still further increase as the season advances.

The efforts which have been made by the Midland Railway Company for the last three or four years to obtain improved communication with the great iron and coal centres of South Wales are likely at last to bear some fruit. By a working arrangement with the Hereford, Hay, and Brecon line, and an agreement with the Neath and Brecon and Swansea Vale lines, they are already able to breach the port of Swansea, and in a short time they will have direct access to the port of Newport by means of the Ross, Monmouthshire, and other lines. A manager has already been appointed for the district, in order to carry out the necessary arrangements respecting the traffic of Monmouthshire, so that in future it is expected the Midland will be able to compete for a fair proportion of the traffic which exists between this district and the Midland and Northern counties. Freighters have anxiously looked forward to such a connection for some time, and much satisfaction is expressed at the step which has been taken to bring it about.

At the Pontnewynydd Iron Works a rather startling disaster occurred a few days ago. The large driving wheel, while revolving at its fullest speed, was suddenly scattered in fragments over the works, one portion of it, weighing about 15 cwt., being hurled through the roof of the establishment. The machinery was extensively damaged, and operations must be suspended for some time in consequence. The men who were working about escaped in a marvellous manner without injury.

The enquiry into the late explosion at the Abercromby Colliery, by which five men were killed, was resumed on Wednesday at Aberlargo, before Mr. G. Overton, Coroner. Mr. Wales, Her Majesty's Inspector of Mines, was present. The evidence adduced on this occasion went to show that the explosion took place at the flue, and that it was caused by neglect on the part of the flue man and the sudden fall of the barometer. It stated that the two flues were asleep at the time. The enquiry was further adjourned.

The arrivals at Swansea include—the Pandora, from Carlotorte, with 435 tons of zinc ore, for H. Bath and Son; Baltic, from Carlotorte, with 240 tons of zinc ore, for H. Bath and Son; Demetrius, from Bilbao, with 538 tons of iron ore, for Dowlais Iron Co.; Laura, from Genoa, with 340 tons of copper ore, for H. Bath and Son; Emilia, from Bilbao, with 210 tons of iron ore, for James Strick; Lislo, from Carlotorte, with 790 tons of zinc ore, for H. Bath and Son; Hercules, from Coquimbó, with 540 tons of copper regulus, for H. Bath and Son; Connetable di Clislon, from Bilbao, with 125 tons of iron ore, for Holway, Bros.; Coplago, from Paposa, with 500 tons of copper ore, in bulk, for H. Bath and Son; Gem of the Sea, from Carlotorte, with 309 tons of zinc ore, for H. Bath and Son; Powhattan, from Taitai, with 610 tons of copper regulus, for H. Bath and Son.

THE SHROPSHIRE COAL FIELD.

VISIT OF THE SOUTH MIDLAND INSTITUTE TO THE UPPER COAL MEASURE SERIES.

Several of the more influential members of this young and flourishing institute, including the President, Her Majesty's Inspector of Mines, Mr. Baker, Prof. Beckett (ex-President), Mr. Cope (secretary), and others, paid a visit on Monday to the singular group of upper coal measures on Linley Brook, opposite to Apley.

At Linley they were met by Mr. Randall, who, in conjunction with Mr. Roberts, late secretary of the Geological Society of London, prepared a paper on these rocks, which was read by the President, Prof. Ramsey. Mr. Randall called the attention of the visitors to some flaggy limestones lying in the bed of the brook, full of clusters of shells, in which Mediolopsis is most conspicuous, and with which spines and teeth of fish are also found, several specimens of which were collected. A dull yellow sandstone, answering to the well-known Downton sandstone, near Ludlow, rich in Berychia, and in which fish remains are also found, was next visited. The "Passage Beds," leading from the Upper Ludlow to the Old Red Sandstone, consisting of red and grey shales, containing lingula, and capped by Old Red rocks, with ripple marks, and numerous fish remains, and the "Upper Bone Beds" were also examined, and specimens procured. Lower down the brook, and near to an old mill, mentioned in the Domesday Survey of the county, and which has, it is supposed, been grinding batches from that time to this, some dark-grey sandstone, with "coal sheds"—to use a term familiar in Shropshire—is seen, which is supposed to intervene between the Old Red and the younger coal measures, which crop out in a field just over the hedge. These coal seams are accompanied by a limestone, now called the Spirorbis limestone, from the fact that Spirorbis carbonarius is found associated with it in various places where it occurs. The coal measures consist of only two or three poor, worthless seams, and correspond pretty much with similar zones found at other places—in Worcestershire, South and North Staffordshire, besides other places in Shropshire. The feature most to be observed here, and which was discussed by the visitors, is the absence of the old coal measures. Did high ground exist here, composed of an old Silurian cliff, to prevent the deposition of the older and richer beds?

During the coal measure period there must have been oscillations of the surface, and periods when that surface must have been so accessible to the sun and air as to permit plants to have grown and reptiles to have crawled upon the slushy soil; and there must have been subsidences to have permitted great bodies of water over all, sufficient for large fish to have swam, and a sediment to have accumulated sufficient to form our ironstone beds. Did these changes, these oscillations, these elevations and depressions occur in Shropshire and South Staffordshire, with the exception of just here? And where is the evidence that this was high land during the long periods of coal measure deposition, and then, of its dipping at last to receive the younger seams? We know of none. On the other hand, we find within a few miles of Linley, at Caughley, the relics of the old coal measures, overlaid by these younger ones, with this same bed of Spirorbis limestone as exist here at Linley; and we find other similar patches more or less thick, accompanied, in some instances, with evidences of the denuding action of the water.

The only other supposition is that the coal measures were formed here as elsewhere, and then denuded. The Permian Sandstone is seen at a short distance, dipping rapidly away from the coal measures, and this is succeeded on the Apley side by the New Red. Sometime ago a seam of coal was found in the Permian rocks. The visitors, we need scarcely say, were pleased with what they saw; and having partaken of lunch, to which they were kindly invited by Mr. W. O. Foster, took their departure for Wolverhampton.

OLD TREBURGETT SILVER, BLENDE, AND LEAD MINE.

This mine, now become one of the wonders of Cornwall, is well worthy a visit from the tourist and those interested in new discoveries and progress in mining. It is situated about four miles from the sea, near St. Teath, and is readily accessible by carriage from Bodmin, Camelford, or Wadebridge.

Some forty years ago Treburgett was the centre of a great industry, giving employment to several hundred hands. It is mentioned by Sir Henry De la Beche in his "Geological Survey of Cornwall," and the wealth of its lead ore was noted in every mining record, until unfortunately the lode was cut off by a cross-course, and for the time lost, as the efforts to recover it, and to open up an abandoned part of the mine, resulted in an inburst of water, which being too powerful for the means then in use for pumping, flooded the mine, and discomfited the adventurers.

After the property had been abandoned some years, permission was given to the parish authorities to use the rubbish heaps for mending the roads, and to other persons also, to build walls and hedges with the quartz capels or broken pieces of the walls or sides of the lead lodes, sent up occasionally with the metal, and turned aside over the bank as useless.

This led to the discovery of a new value in the product of Treburgett—a true silver ore, which being beyond the knowledge of the old miners, had escaped attention. An old mining tributer observing in the course of years an increase in the value of blende (now utilised as zinc), remembered to have observed quantities of this mineral in the walls or capels of Treburgett, and applied himself to picking it out from the adit and places within his reach.

Soon he was surprised by an unusual price offered by the smelters, as much as 40l. a ton for this hitherto neglected Treburgett ore, and the fact becoming known in the village, the walls were pulled up in pieces, the hedges ransacked, and even the very roads picked up in search of these valuable silver-bearing stones. These facts coming to the knowledge of Mr. T. A. Masey, of the Inner Temple, then on a vacation and geological tour in the vicinity, he followed up the matter to the rubbish heaps of the mine itself, which on being turned over yielded silver ore, after lying exposed forty years, to the value of 28l. a ton, without being either crushed or dressed. It being sent to the smelters exactly in the same state as found.

The scientific services of Prof. David Forbes, F.R.S., were then invoked, and a piece of ore picked up haphazard at the mine by him

gave on careful examination by assay 3000 ounces of fine silver to the ton. Silver, both native and otherwise combined, has been long known in Cornwall, but this examination of the waste heaps, the refuse of the Treburgett lodes, worked for lead some forty years ago, has led to the discovery of a rich silver-bearing ore, known to mineralogists as polytellite.

The workings, in consequence, have been actively resumed under the auspices of a limited liability company, in 20,000 shares, of 12. each, and a powerful pumping-engine having been erected, the old workings have been unwatered, sufficiently to demonstrate that the capels or side walls of the lode, containing this rich silver ore and blende, have been left standing, as being distinct and separate from the lead, its value was not recognised by the former adventurers.

In addition to this, the lost lode has been again discovered, which bids fair to be as productive for lead and other ores as before, and also two other fine lodes of great promise and value intersecting it. This discovery of rich silver fahlerz, distinct and separate by itself, and also associated with blende ore, formed in the capels of a lead lode, opens up a new era in Cornish mining, so that the re-opening and working of this mine is in many ways an interesting event, as, probably, leading the way to a new field in British silver-lead mining, which has been somewhat neglected for foreign mines, but which now promises, through the more accurate knowledge of minerals now possessed, to be one of the richest in the kingdom, and, perhaps, even to rival some of the famous silver mining districts of the New World now being brought forward; for it is the opinion expressed by men of science and extensive mining knowledge, that the silver ore in Old Treburgett will increase in richness and quantity the deeper the lode is worked. The study of the formation of the Old Treburgett Mine is of great interest to the geologist and mineralogist, and may throw some light on the formation of silver ore, and silver in connection with lead lodes generally, as there is scarcely any other formation in the kingdom that offers so many points of interest as the workings of this mine.

Some idea of the wealth that awaits the new adventurers may be estimated from the fact that the old workings extend near $\frac{1}{2}$ mile in length, having capels or walls, containing silver ore, both separate and in combination with blende, of upwards of 3 ft. wide, and estimated to produce, as at present in the 10 fathom level, 2 tons of ore to the fathom, with 60 fathoms in depth of backs, open and ready to be taken away as the water is pumped out, and also $\frac{1}{2}$ mile in length of virgin ground on the course of the old lode, with a like distance on the run of the two north and south lodes that cross it, the value of which intersection, as every miner knows, has led to the old Cornish phrase of "ore against ore."

The mine is open every Wednesday for inspection, on visitors handing their cards to Capt. W. Hancock, who has charge of the mine.

THE ALMADA AND TIRITO CONSOLIDATED SILVER MINING COMPANY.

In another column we give a full report of the first half-yearly general meeting held by this company on Monday. We may fairly congratulate the shareholders on their property having so rapidly become dividend-paying. Mr. Clemes having only reached the mines at the end of last March; and the circumstances warrant the belief that in the course of a very short time the dividends will be tripled or quadrupled: 30 stamps, and the necessary steam-power, being already purchased. Mr. Clemes, in his able report of Aug. 30 last, says:—"The present rate of extraction is insignificant compared with what we have every reason to expect, but the expenditure of time in laying open a property of this kind is unavoidable."

The length of ore ground now being profitably worked in the Tirito alone is 40 fms., of an average width of 18 ft., and worth 2000l. to the fathom for the width of the lode. On the north, driving towards the Providencia and Mina Grande, a slide has been encountered, but it is confidently expected that the ore ground on the other side will be equally rich, and that the cutting through the slide will drain the Providencia and Mina Grande Mines to the depth of the tunnel, about 50 fathoms from the surface.

The drainage of these mines will enable the ore ground therein to be speedily opened up. The Providencia at the water level, about 25 fms. from surface, has been proved to be rich, and below that level it is maiden ground, and doubtless it will be rich in depth, as in the Tirito, immediately adjoining.

The main body of the ore, however, will be found in the Mina Grande Mine. That property was worked years ago to the 80 fms. level, by the Almada family, and the bottom gallery therein was 130 to 180 varas (yards) long, all in ore, and the vein was worked to a width of 12 varas, without reaching the upper wall. Don José Maria Quiros, who was superintendent of the mine in 1821, 1822, and 1823, says that in the three years of his administration this mine gave a profit of \$800,000. It has been stated on reliable authority that the produce up to the time of Signor Almada ceasing to work, in consequence of the ores becoming black oxide of silver, and refractory, the beneficence of which he did not then understand, exceeded \$3,000,000.

At 120 varas in depth the mass of metal was enormously large, the lower wall exceedingly well marked, and the upper one lost in the multitude of seams. Signor Almada stated that at this point 500 miners could be employed. The yield of the ores was never below from 40 to 160 ozs. per ton.

It will thus be seen that the prospects of this company are highly encouraging. In fact, the Almada and Tirito Mines will probably become one of the most important mining and reduction establishments in Mexico, and they have the great natural advantages of proximity to the coast, cheap labour, and abundant fuel.

MINING ON THE PACIFIC COAST.

THE WYOMING SWEETWATER MINING COMPANY.

The States of Nevada and California have probably yielded within a given period more gold and silver than any other tract of country of similar proportions throughout the whole globe. In the former the Comstock lode alone has within a few years returned silver of the value of 20,000,000l., while in the latter the Mother Lode has proved itself equally rich in gold. For many years it was thought that California was the only state west of the Rocky Mountains that contained precious metals to any material extent, but Nevada having subsequently disclosed treasure of equal, if not greater, value induced exploratory work in the adjoining states. This has resulted in some of the most important discoveries, more particularly in Sweetwater county, in the State of Wyoming, where the lodes, unlike those in the contiguous territories, are found to be disseminated throughout with an exceptionally high average percentage of metal.

Scarcely three years have elapsed since Wyoming began to attract the attention of the mineral explorer, but since then several townships have been formed, and among them South Pass City, the capital of Sweetwater. It is within two miles of this place that the property of the Wyoming Sweetwater Company is situated. It consists of a superficial length of 1200 ft., and a breadth of 100 ft., on the course of an auriferous lode 3 to 4 ft. wide, and known upon the records of the county as the "Irishman."

Mr. John Petherick, M.E., F.G.S., describes this and several other lodes of similar description to abound with free and latent gold, and as being more or less worked to a distance of 10 miles in length. Geologically, the property cannot possibly be more favourably situated, as the lodes eastward diverge and occupy a space of about three miles, while westward they converge in a hill not more than $\frac{1}{2}$ mile wide, the back of which is the outcrop of the "Irishman Lode." Mr. Petherick, during his inspection of the three mines working upon this lode, broke down various portions of rock weighing some 5 lbs., which, after pulverising and panning, was found to yield an average of 5 ozs. of gold to the ton; and the samples which he broke from the bottom of the shaft in the Carena Mine have since been assayed by Messrs. Johnson and Matthey, the result showing a yield of 8 ozs. of fine gold and 6 ozs. of silver per ton of quartz.

It is computed upon information obtained from mine owners in the locality that the total cost of extraction, amalgamating, &c., cannot under any circumstances exceed \$10 per ton, so that there would be a margin of profit of 16l. per ton, basing the yield at not more than 4l. ozs. per ton—the produce obtained by Mr. Petherick by means of

the crude test adopted on the mine. But Mr. Petherick states that a more correct estimation can be formed from the result of 109 tons crushed from the bottom of the Carena Mine (22 fms. deep), which produced \$123 per ton, equivalent—at 4s. per dollar—to nearly 25l. per ton.

After a minute investigation of the entire district, Mr. Petherick has come to the decided conclusion that it generally abounds with the richest and purest veins of free and latent gold on record, and that the Wyoming Company possesses as promising a property as he has anywhere witnessed.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WHEAL POLMEAR MINING COMPANY.—TENDERS, stating the highest price that will be given for a 36 in. cylinder ENGINE, 10 ft. stroke, even beam, and TWO BOILERS, 10 tons each, now being on WHEAL POLMEAR MINE, in the parish of ST. AUSTELL, within the Stannaries of Cornwall, will be received by the Registrar of this Court, at Truro, within the said Stannaries, on or before Wednesday, the 2nd day of November next.

The above machinery can be seen on application to the officer of the Court in possession thereof at the mine, and further particulars obtained of—
F. HEABLE COCK, Solicitor, Truro.

Dated Registrar's Office, Truro, 18th October, 1870.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN RE EAST WHEAL SETON MINE.

TO BE SOLD, pursuant to an order made in a Cause of Watson v. Wade and Another, dated the 30th day of July last, at the Registrar's Office at Truro, on Wednesday, the 2nd day of November next, at Twelve o'clock at noon, the
25 (5610ths) PARTS or SHARES of the defendants, the Rev. Benjamin Wade and William Law, as executors or other the personal representatives of Samuel Law, deceased,

OF and in the said MINE.

HODGE, HOCKIN, AND MARRACK, Plaintiffs' Solicitors, Truro.
Dated Registrar's Office, Truro, Oct. 25, 1870.

FLINTSHIRE.

TO COLLIERY PROPRIETORS AND OTHERS.

SALE OF A VALUABLE COLLIERY, known as the NANT COLLIERY, together with the LEASES of the MINES connected therewith, and the WHOLE of the EXTENSIVE and COSTLY PLANT, MACHINERY, and effects.

MESSRS. CHURTON AND ELPHICK respectfully announce that they have been favoured with instructions TO SELL, BY AUCTION, at the Queen Hotel, Chester Railway Station, on Saturday, the 12th day of November, 1870, at Two o'clock P.M., most punctually, in One Lot, and subject to such conditions as will then be produced, all that VALUABLE COLLIERY, known as the

NANT COLLIERY.

Situate in the township of BISTREE, in the parish of MOLD, and county of FLINT, together with the LEASES of the MINES of GOLD, CANNEL COAL, SLACK, and IRONSTONE, held from the lords of Mold, under certain estates, called Nant Mawr and Bistree, extending to upwards of 161 acres of land or thereabouts, for 21 and 25 years respectively, from the 25th of December, 1858, and from the 25th of December, 1857, at the usual royalties of the district.

Also, all the very EXTENSIVE and COSTLY PLANT, MACHINERY, and effects adapted for and used for the said colliery, including the railway from Padwedol, a schedule of which will be printed and circulated with the particulars of sale.

The Chester and Mold Railway runs through the property, and the pits are connected with it by a private locomotive branch, with points, crossings, junction, &c., complete.

It is believed that by a judicious outlay and good management this colliery is capable of being made extremely valuable and highly productive.

Printed particulars and any further information may be obtained from Messrs. TYNDALL, JOHNSON, and TYNDALL, Solicitors, Birmingham; or from the Auctioneers, Whitechurch (Shropshire) and Chester, at the latter of whose offices a plan of the land in lease may be seen.

THE MERTHYR DARE STEAM COAL COLLIERY, ABERDARE, GLAMORGANSHIRE.

MESSRS. FULLER, HORSEY, SON, AND CO. are instructed by Messrs. Rhys and Richards to SELL, BY AUCTION, at the Auction Mart, Tokenhouse-yard, London, on Wednesday, November 2, 1870, at One o'clock precisely, in One Lot, the very valuable LEASEHOLD COLLIERY, known as the

MERTHYR DARE COLLIERY.

Situate about two miles from ABERDARE, lying between Powell's Duffryn Company's Own Dare Colliery, the Bewell's Marine Steam Coal Company's Colliery, and Mr. Mordecai Jones's Nantmell Merthyr Steam Coal Colliery, having direct communications by sidings on the Great Western Railway system with the shipping ports of Swansea, Port Talbot, Briton Ferry, Cardiff, and Newport, as well as Liverpool and London. The Dare Branch of the Taff Vale Railway runs over the property.

The total area of the mineral property is 482 acres, and there are underlying the surface FOURTEEN SEAMS OF COAL, of the aggregate thickness of 56 feet, or thereabouts, besides the Graig Yellin, which crops out on the property.

The colliery was opened in 1852, and but a small portion of the upper seams has been worked. The coal is well known in the steam coal markets, and is on the Admiralty List. The colliery has been opened with two downcast shafts, and one upcast. No. 1 pit is sunk to the Upper Four-foot Seam a depth of 120 yards, and No. 2 pit is sunk to the Nine-foot Seam a depth of 164 yards. The workings are thoroughly ventilated, and are equal to an output of between 200 and 300 tons per day, which by a comparatively moderate outlay may be increased to 600 or 800 tons. There are several veins of ironstone, which are won with the coal, and some first-class fire-clay.

The property is held on lease for an unexpired term of about 41 years, at moderate royalties.

The MACHINERY is in good working order, and includes TWO PIT WINDING ENGINES, FOUR BOILERS, pulley frames and cages, a pair of INCLINE WINDING ENGINES and BOILER, saw mill engine, &c. The whole of which, together with about 12½ miles of rails above and underground, trams, sercons, weighing machines, saw machinery, and other requisite apparatus for working the colliery, will be included in the purchase.

There are seven cottages, stabling, and other buildings, and an excellent supply of water for steam purposes.

The colliery may be inspected on application to Mr. LEWIS, Dynevor Mining Offices, Aberdare.

Printed particulars, with plans and sections, may shortly be obtained of Mr. RANDALL, Solicitor, Neath; of Mr. W. ROBINSON SMITH, Solicitor, Swansea; at the Inns at Newport and Cardiff; at the Auction Mart; and of Messrs. FULLER, HORSEY, SON, and CO., 11, Billiter-square, London, E.C.

CARDIGANSHIRE.

FOR SALE, BY PRIVATE CONTRACT, NEW LISBURNE

MINE, situated about twelve miles south-east of ABERYSTWYTH. It adjoins the celebrated Lisburne Mines, and on the mine now offered for sale the identical lode, which has been worked at Lisburne for very many years to a very great depth, has been laid open.

The mine has been sufficiently proved to render its future working at a large profit a matter of certainty.

Intending purchasers may obtain further particulars on application to HUGH HUGHES, Esq., Solicitor, Aberystwyth.

MINING MATERIALS.

FOR SALE, BY PRIVATE CONTRACT, at PERRANPORTH,

PERRANZABULOE, the following MATERIALS, viz.:—
An excellent CRUSHER, with a wood house; crusher wheel, 28 ft. by 3½ ft., with wrought iron axle; 10 ft. tooth wheel.

A WATER WHEEL, 24 ft. by 3 ft., with cast iron axle and frame complete, for stamping; several stamp heads.

A large timber house and roof; tram road iron; a sampling house.

ONE HORSE WHIM; staples and glands; one screw stock; several pulleys; 60 fms. ladders; rope; and sundry other materials.

Apply to Captain FILL, Perranporth.

FOR SALE, BY PRIVATE CONTRACT, at PAR CONSOLS,

Par Statton, CORNWALL, and close to Par Shipping Harbour.

ONE 80, and ONE 7½ in. cylinder PUMPING ENGINE, and BOILERS.

24, 18, and 12 in. WINDING ENGINES and BOILERS.

8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20 in. PUMPS.

H and top-door pieces; plunger poles; rod plates; and a large quantity of other useful MINING MATERIALS.

Apply to Capt. PUCKEY, St. Blazey, Cornwall.

LANARKSHIRE.

TO BE LET, at Whitsunday next, the REMAINING COAL and ROUGHBAND IRONSTONE and FIRE CLAY at CLELAND, near MOTHERWELL, recently held on lease by the late ROBERT STEWART, Esq., of Omoa Iron Works.

Also, a FIELD OF OIL SHALE, and the CLAY and SHALE on the Ironstone heaps, for brickmaking.

The mineral field is connected with Edinburgh and Glasgow by the Caledonian Railway system, and there are houses in readiness for workmen.

Mr. ROBERT, at Cleland Townhead, Motherwell, will point out the Coal and Oil Shale Fields, and exhibit the working plans; and offers for a lease will be received by him, or by Messrs. DUNDAS and WILSON, G.S., St. Andrew-square, Edinburgh; or by Messrs. JOHN and G. H. GEDDES, Mining Engineers, Melville-crescent, Edinburgh.—14th October, 1870.

TO BE LET, ON LEASE, for a term of years, SEVERAL

ACRES OF LAND, suitable for MANUFACTURING PURPOSES, advantageously situated on the south bank of the River Tyne, about two miles below Newcastle-on-Tyne, and within a quarter of a mile from the North-Eastern Railway. There is a good quay frontage, with deep water.

Apply to Mr. T. S. BRANWELL, King-street, Quay-side, Newcastle-on-Tyne.

SOUTH EXMOUTH MINE, HENNOCK, DEVON.

FOR SALE, BY PRIVATE CONTRACT, the following, viz.:—

40 in. cylinder PUMPING ENGINE.
25 in. cylinder WHIM ENGINE, with CRUSHER attached.
60 fms. 11 and 12 in. PUMPS in shaft.
30 fms. 11 and 12 in. PUMPS at surface.

Timber, and various useful mining materials.

Apply to Capt. JOHN CORNISH, Frank Mills Mine, Chistow; or to Mr. J. O. HARRIS, Public Accountant, 2, Gandy-street, Exeter.

FOR SALE, a superior secondhand 25-horse power PORTABLE

STEAM ENGINE, also a 16-horse power, both equal to new, and guaranteed.

FOR SALE, cheap, several first-class new PORTABLE STEAM ENGINES

3 to 12-horse power, with all recent improvements.

PIT WINDING GEAR made at a short notice, suitable for Portable Engines.

FOR SALE, a secondhand PORTABLE ENGINE, with a MORTAR MILL.

Apply to—
BARROWS AND STEWART, ENGINEERS, BANBURY.

FOR SALE, THE UNDERMENTIONED ENGINES:—

ONE 50 in. cylinder PUMPING ENGINE, with ONE BOILER.

ONE 30 in. cylinder ROTARY STEAM ENGINE, 7 ft. stroke, with or without BOILER, wrought iron fly-wheel shaft, and 10 ton fly-wheel; 12 heads of stamps connected.

ONE 12 in. cylinder ROTARY STEAM ENGINE, with ONE 6 ton BOILER.

THREE Cornish BOILERS, from 10 to 12 tons each, in excellent condition.

Also, several Cornish CRUSHERS, of various sizes.

A 60 feet WATER WHEEL, with hammered iron round shaft, cast-iron sockets, rings, &c.

For further information, apply to—
W. MATHEWS, ENGINEER, TAVISTOCK.

Tavistock, July 28th, 1870.

TO ENGINEERS, CONTRACTORS, BUILDERS, &c.

FOR SALE, a FIRST-RATE NEW 12 cwt. STEAM HAMMER,

by Kirkstall Forge Co., Leeds, 12 in. cylinder, wrought iron piston rod.

THREE Dunn's patent DRUM TURNABLES, 7 ft. diameter.

134 18 ft. lengths of 28 lbs. CONTRACTORS' RAILS, in excellent condition.

ONE CAST IRON TANK, 13 ft. 2 in., by 17 ft. 2 in. by 4 ft. 7 in.; will make other useful uses.

ONE powerful HYDRAULIC PRESS, inverted ram, 10 in. diameter, 18 in. stroke.

ONE Stearine HYDRAULIC PRESS, ram 13 in. diameter, 15 in. stroke.

33,000 excellent FIRE BRICKS.

ONE 5 ton portable WHARF CRANE.

Apply to GUYNE and CO., Essex Street Works, Strand, London, W.C.

ON SALE, SECONDHAND ENGINEERS', MACHINISTS',

COLLIERY, and CONTRACTORS' PLANT; TOOLS and MACHINERY

STEAM ENGINES, BOILERS, &c.

Particulars in "Monthly Register," post free on application.

FREDERICK MILLS,

CONSULTING ENGINEER AND MACHINERY AGENT,

ST. ANN'S SQUARE, MANCHESTER.

VALUABLE CORNISH MINING MACHINERY.

MESSRS. J. C. LANYON AND SON have FOR SALE a very

superior lot of the above, including—

50, 70, 60, 30, and 24 inch PUMPING ENGINES;

24 inch ROTARY ENGINE, with CAPSTAN;

22 inch ditto, with CAPSTAN and CRUSHER;

Several good BOILERS;

A large assortment of PITWORK of all sizes; STRAPPING PLATES, rolled and faggoted, all of which are secondhand, in good condition, and will be sold on very reasonable terms.

For particulars, apply to—
LANYON AND SON, MERCHANTS, REDRUTH.

Dated Redruth, Feb. 25, 1870.

IMPORTANT NOTICE.

TO MINE PROPRIETORS, AGENTS, AND ENGINEERS.

MESSRS. J. C. LANYON AND SON, of REDRUTH,

CORNWALL, having PURCHASED the WHOLE of the PLANT of the

CLIFFORD AMALGAMATED MINES, beg to call the attention of all parties

requiring SECONDHAND ENGINES, BOILERS, PITWORK, or MINING

MATERIALS of any description, to the unprecedentedly favourable opportunity

thus afforded for supplying their wants on the most favourable terms.

Communications to be addressed to—
July 4, 1870. J. C. LANYON AND SON, REDRUTH, CORNWALL.

CANNOCK CHASE COAL BY CANAL AND RAILWAY.

THE COMPANY SEND COAL BY RAILWAY, in trucks, TO

ALL STATIONS, and LOAD CANAL BOATS at their extensive wharves

on the Angley branch of the Birmingham Canal, adjoining the colliery; and

also at Hednesford Basin, Cannock.

Also SUPPLY best LAYCOCK'S GAREFIELD FOUNDRY COKE, FIRE

BRICKS, and CLAY RETORTS, free on board ship, Tyne Dock, Newcastle-on-

Tyne.

Cannel gas coal, 15,000 feet of gas per ton. Illuminating power of gas in

standard candles, 3½ candles.

For prices, apply to—
JOHN N. BROWN,

ANGLESEY CHAMBERS, NEW STREET, BIRMINGHAM.

LONDON OFFICE, 455, NEW OXFORD STREET.

THE MARINER'S REEF QUARTZ MINING AND

CRUSHING COMPANY (LIMITED).

MARYBOROUGH, VICTORIA, AUSTRALIA.

DIVIDENDS FORTHWITH. SPECIAL NOTICE.

To ensure allotment at par in this company applications must be sent in at

once, before the arrival of the telegram, due next week, from Australia.

LONDON AGENT.

THOMAS DICKER, Australian and London Mining and General Agency,

4, ROYAL EXCHANGE AVENUE, LONDON,

Established in 1868, from whom prospectuses and all information can be obtained.

ABRIDGED PROSPECTUS.

MR. F. F. BUFFEN, the Manager of the Wyoming Mining Agency,

15, Coleman-street, London, is prepared to receive applications for

the remaining 3000 shares in the—

WYOMING SWEETWATER MINING COMPANY

(LIMITED).

Incorporated under the Companies Acts, 1862 and 1867, by which

the liability is limited to the amount subscribed by each member.</

**ICKFORD'S PATENT
FOR CONVEYING
CHARGE IN**

**SAFETY FUSE,
FIRE TO THE
BLASTING ROCKS, &c.**

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION," held in Paris, in 1855; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; at the "UNIVERSAL EXPOSITION," in Paris, 1867; and at the "GREAT INDUSTRIAL EXHIBITION," at Altona, in 1869.



BICKFORD, SMITH, AND CO., of TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL OF FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH THE COLUMN OF GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

THE CORNWALL BLASTING POWDER COMPANY
ST. ALLEN MILLS, TRURO.

Beg to call attention to their WARRANTED WATERPROOF SAFETY BLASTING CARTRIDGES, adapted for SUBMARINE BLASTING and USE IN WET GROUND GENERALLY.
Prices and samples on application.

**PISTONS, AND AIR-PUMP BUCKETS,
FITTED WITH**
"PATENT ELASTIC METALLIC PACKING,"

Of which above FIVE THOUSAND have been made by
MESSES. MATHER AND PLATT,
SALFORD IRONWORKS, MANCHESTER.

JAMES BUTTERWORTH

MAKER OF ALL THE VARIOUS SIZES OF
VERTICAL AND HORIZONTAL HIGH-PRESSURE STEAM
ENGINES.

VERTICAL ENGINES, from 2 to 10-horse power,
HORIZONTAL ENGINES, from 3 to 40-horse power,
FORTY STEAM ENGINES, from 2 to 20-horse power,
In stock to select from, prices low, and ready for immediate delivery.

COLLIERY WINDING ENGINES

Made on an improved principle, up to 40-horse power.

TEAM DONKEY PUMPING ENGINES, from 2 in. up to 12 in., rams properly
tested in actual work before delivery.

All made in a good, strong, substantial, workman-like manner, of the best
material, and warranted to work well.
Plans, specifications, and estimates furnished upon application at the
ALBERT STREET ENGINE WORKS, MANCHESTER.
ESTABLISHED 1840.

IMPROVED APPLICATION OF WATER POWER.
THE TURBINE.

**MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO
FOUNDRY, BELFAST,** after twenty years of experience, have brought
their IMPROVED TURBINE to great perfection.
It is applicable to all practical heights of fall, giving much greater power
from the water than any other kind of water-wheel.
On low falls it has the great advantage of not being impeded by floods or
back-water.

It is particularly well adapted for situations where the quantity of water is
variable, and where all other wheels fail.
Its motion is extremely regular, and, when desired, a governor can be applied
effectively.

This wheel is at work in a great many places, to which references will be given.

STEEL WIRE RODS.

Titanic Steel and Iron Company
(LIMITED),

SOLE MANUFACTURERS OF MUSHET'S

TITANIC "BORER" STEEL.

"R. MUSHET'S SPECIAL STEEL," for LATHE and
PLANING TOOLS (N.B.—This Steel requires no hardening
after being forged).

MUSHET'S TITANIC CAST STEEL,

For Drills, Chisels, Punches, Lathe Tools, Hammers, &c., &c.

WIRE ROLLERS.

FOREST STEEL WORKS,
COLEFORD, GLOUCESTERSHIRE.



By a special method of preparation, this leather is made solid, perfectly close
in texture, and impermeable to water; it has, therefore, all the qualifications
essential for pump buckets, and is the most durable material of which they can
be made. It may be had of all dealers in leather, and of

I. AND T. HEPBURN AND SONS,

TANNERS AND CURRIERS, LEATHER MILLBAND AND HOSE PIPE
MANUFACTURERS,
LONG LANE, SOUTHWARK, LONDON.

Prize Medals, 1851, 1855, 1862, for
MILLBANDS, HOSE, AND LEATHER FOR MACHINERY PURPOSES,

RAILWAY WAGON WORKS, BARNSELY.
MESSESS. G. W. AND T. CRAIR

ARE PREPARED TO
SUPPLY COAL AND COKE WAGONS
OF EVERY DESCRIPTION,
Either for cash, or by deferred payments through wagon-leasing companies
WAGONS PROMPTLY REPAIRED.

**STURGEON AND CO
ENGINEERS, &c.,
BOLTON,**

Sole Manufacturers of the Patent Self-acting
ORE CRUSHING AND PULVERISING MACHINERY,
Patent Coal-getting Plant,
Patent Air Compressing Engines,
Patent Blowers and Exhaustors, &c., &c.
"Dead Blow" Steam Hammer.
Testimonials and Prices post free on application.

GLASGOW OFFICE: 127 and 129, TRONGATE—

P. and W. MACCLELLAN, Agents.

LONDON OFFICE: 33, CORNHILL, E.C.—

DONALD ATKIN and Co., Agents.

DEEP LIFT PUMPS.

HAYWARD TYLER AND CO. are prepared to ESTIMATE
for their

PATENT "UNIVERSAL" STEAM PUMPS.

Vertical and horizontal, with either long or short strokes. These machines
have no fly-wheel, tappet, or small valves, are exceedingly simple, and are ap-
plicable to lifts of any height.

SOLE MAKERS,
84 and 85, UPPER WHITECROSS STREET, LONDON, E.C.

WARTON NATIVE OXIDE OF IRON

IS SUPERIOR TO ANY OTHER PAINT IN

BODY AND BRILLIANCY OF COLOUR,

AND, UNLIKE LEAD PIGMENTS,

IS INNOCUOUS TO THE WORKMEN USING IT.

Prices may be obtained on application to the agents,—

H. J. WALDUCK AND CO.,

No. 1, MARKET STREET, MANCHESTER.

THE BEVERLEY IRON AND WAGON COMPANY,

LIMITED,

MANUFACTURERS of RAILWAY WAGGONS, WHEELS and AXLES,
CARTS, LORRIES, WOOD WHEELS, PATENT WROUGHT IRON WHEELS
and AXLES, BARROWS, PUMPS, DOUBLE PURCHASE CRABS, &c., &c.
IRON WORKS—BEVERLEY, YORKSHIRE.
Catalogues free by post.

MARTYN AND CO'S SELF-ACTING BUDDLE
(PATENTED).

LICENSES GRANTED by R. MARTYN, CLINTON VILLA, REDRUTH,
CORNWALL.

JOHN HORSLEY,

IRON AND METAL AGENT,

ST. ANN'S SQUARE, MANCHESTER.

PERMANENT CONTRACTORS, and COLLIERY RAILS, in STEEL or IRON.
Wrought-iron or Steel Weldless Locomotive Carriage and Wagon Tyres.
Iron and Steel Straight and Cranked Axles, Wheels and Axles, Railway Chairs,
Fish Plates, Bolts and Nuts, Spikes, Cranes, Jacks, Rivets, Hurdles,
and Chains.

Black or Galvanised Telegraph Wires, Fencing Wire.
BLACK, OILED, and GALVANISED CORRUGATED SHEETS.
Rolled Iron Joists, Wrought-iron Girders, Roofs, Bridges, Tanks, Boilers, &c.
Boat Girders, Tank Bridge and Boiler Plates.
Angle, Tee, and Girder Iron.—Nail Rods, Tin Plates, Hoops, Sheets, Lead, Cop-
per, Tin, Zinc, and Spelter.
Hot and Cold Blast Pig Iron, &c., &c.

RAILWAY CARRIAGE COMPANY (LIMITED).

ESTABLISHED 1847.

OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY
DESCRIPTION of IRONWORK.
Passenger carriages and wagons built, either for cash or for payment,
over a period of years.

RAILWAY WAGONS FOR HIRE.

CHIEF OFFICES.—OLDBURY WORKS, NEAR BIRMINGHAM.

LONDON OFFICES.—7, GREAT WINCHESTER STREET BUILDINGS.

THE BIRMINGHAM WAGON COMPANY (LIMITED)

MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for
HIRE and SALE, by immediate or deferred payments. They have also wagons
for hire capable of carrying 6, 8, and 10 tons, part of which are constructed spe-
cially for shipping purposes. Wagons in working order maintained by contract.
EDMUND FOWLER, Sec.

WAGON WORKS.—SMETHWICK, BIRMINGHAM.

* Loans received on Debenture; particulars on application.

STAFFORDSHIRE WHEEL AND AXLE COMPANY

(LIMITED).

MANUFACTURERS of RAILWAY CARRIAGE, WAGON, and CONTRAC-
TORS' WHEELS and AXLES, and other IRONWORK used in the CON-
STRUCTION of RAILWAY ROLLING STOCK.
OFFICES AND WORKS,
HEATH STREET SOUTH, SPRING HILL, BIRMINGHAM.

WILLIAMS'S PERRAN FOUNDRY COMPANY,

CORNWALL.

MANUFACTURERS of PUMPING and OTHER ENGINES and GENERAL
MACHINERY, have FOR SALE:—
ONE 26 in. PUMPING ENGINE, secondhand.
ONE 30 in. PUMPING ENGINE, secondhand.
ONE 8 in. HORIZONTAL HIGH-PRESSURE ENGINE, new.
Several Cornish BOILERS.
Also a large assortment of NEW and SECONDHAND PITWORK, at mode-
rate prices.

LONDON OFFICES.—1 and 2, GREAT WINCHESTER STREET
BUILDINGS, E.C.

**SECONDHAND MINING MACHINERY FOR SALE,
IN FIRST-RATE CONDITION.**

PUMPING ENGINES, of various sizes,—viz., 70 in., 60 in.,
50 in., 40 in., 30 in.
WINDING ENGINES, STAMPING ENGINES, STEAM CAPSTANS, and
CRUSHERS of various sizes.
A NUMBER of BOILERS.
PITWORK of all descriptions, and all kinds of MATERIALS required for
MINING PURPOSES.

TO BE SOLD, AT MODERATE PRICES.

For further particulars, apply to—

MESSES. HARVEY AND CO.,

ENGINEERS AND GENERAL MERCHANTS,

HAYLE, CORNWALL,

AND HAYLE FOUNDRY WHARF, NINE ELMS, LONDON.
CITY OFFICES (GRESHAM HOUSE), 25, OLD BROAD STREET.

MANUFACTURERS OF
PUMPING and other LAND ENGINES and MARINE STEAM ENGINES of
the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING
MACHINERY, and MACHINERY IN GENERAL.
SHIPBUILDERS IN WOOD AND IRON.

THE PATENT PNEUMATIC STAMPS

May be SEEN AT WORK at HAYLE FOUNDRY WHARF, NINE ELMS,
by previous application at either of the above addresses.

TO ENGINEERS, &c.

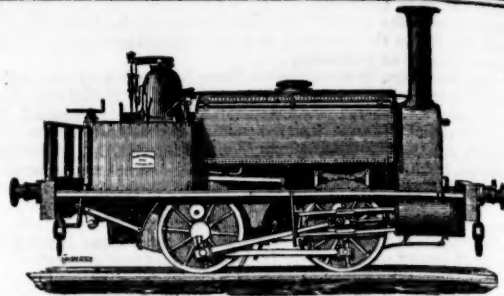
NEW MOTIVE POWER,

COMBINED AIR AND STEAM,

SAVING ABOVE FIFTY PER CENT. FUEL.

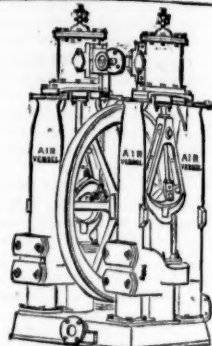
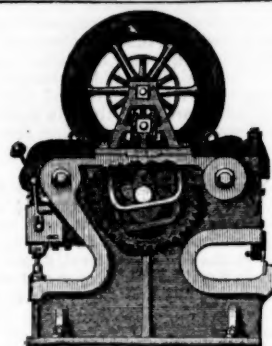
GALLOWAY AND COMPANY WILL GRANT LICENCES
TO ENGINEERS TO APPLY MR. G. BELL GALLOWAY'S INVEN-
TION TO ALL DESCRIPTIONS of ENGINES, as contained in his Patent dated
January 7th, 1865.

For terms of Licence, address B. FOTHERGILL, Esq., C.E., 15, George-street,
Mansion House, London.


TANK LOCOMOTIVES,

FOR SALE OR HIRE.

HENRY HUGHES AND CO.,
LOUGHBOROUGH.


JOHN CAMERON,

MAKER OF

STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS,
BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING
MACHINES, PATENTEE of the DOUBLE CAM LEVER
PUNCHING MACHINE, BAR SHEARS, AND RAIL
PUNCHING MACHINES.

EGERTON STREET IRON WORKS,
HULME, MANCHESTER.

MACHINERY FOR MINES AND SLATE QUARRIES

SAWING, PLANING, DRESSING, AND ROCK-BORING MACHINES
FOR SLATE.

WATER BALANCES, WATER WHEELS, WINDING AND PUMPING MA-
CHINERY; and PLANT of every description for MINES or QUARRIES.
STEAM ENGINES—STATIONARY, MARINE, or LOCOMOTIVE.

BOILERS and GIRDER WORK.

SHAFTING, PULLEYS, and GENERAL MILLWORK.

MACHINERY AND GENERAL CASTINGS.

SPUR and BEVEL WHEELS of any diameter or pitch moulded by machinery
DE WINTON AND CO.,

UNION IRON WORKS, CARNARVON.

**THE PATENT SELF-ACTING MINERAL DRESSING
MACHINE COMPANY (LIMITED).**

T. CURRIE GREGORY, MINING ENGINEER.

OFFICES.—62, ST. VINCENT STREET, GLASGOW.

This company grants licenses, under their patents, for the use, singly or in
combination, of the most approved machinery for dressing ores, comprising
Stamps, Jiggers, Slide-blow Percussion Tables, Classifiers, and Buddies.
The whole in combination are in successful operation at Rhoswyl Mines,
Machynlleth, and the Bog Waste, Shropshire.

The Jiggers are largely used at the Van, and Caldbeck Fells Mines, with un-
qualified success.

Self-acting Floors are in course of construction at various Mines in England
and Scotland, regarding which Mr. GREGORY will be pleased to give infor-
mation, answer all enquiries, and give orders for inspection.

He is prepared to give designs and estimates for the supply of Machinery,
and for the laying out of Floors.

T. CURRIE GREGORY, Secretary.

THOMAS TURTON AND SONS,

MANUFACTURERS OF

CAST STEEL for PUNCHES, TAPS, and DIES,
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CAST STEEL PISTON RODS, CRANK PINS, CON-
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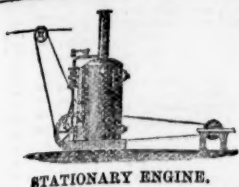
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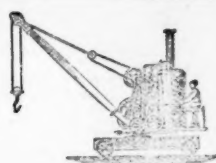
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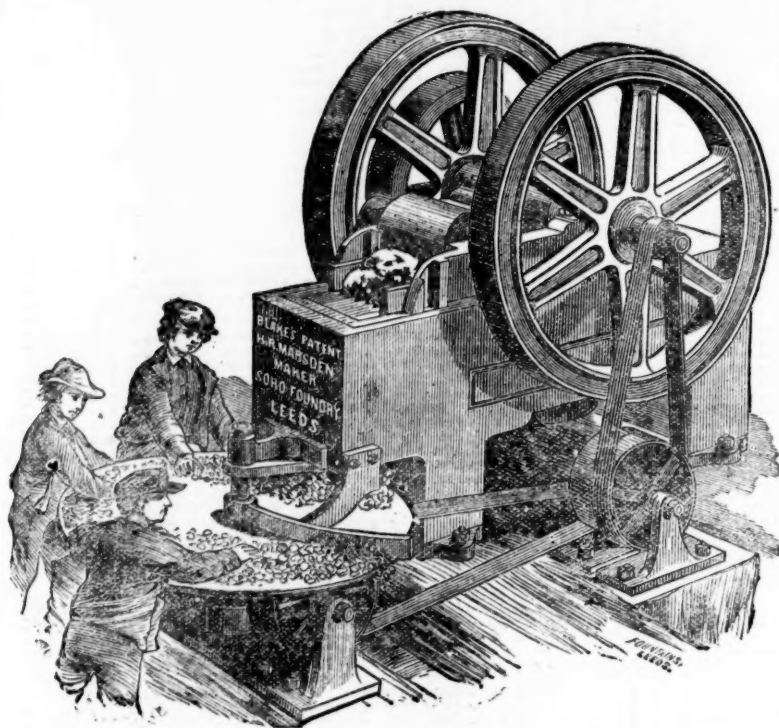
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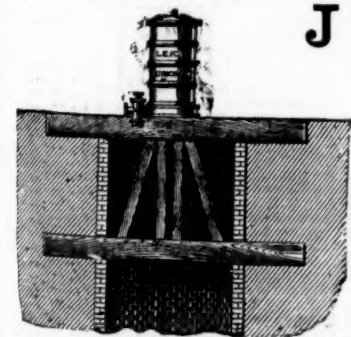
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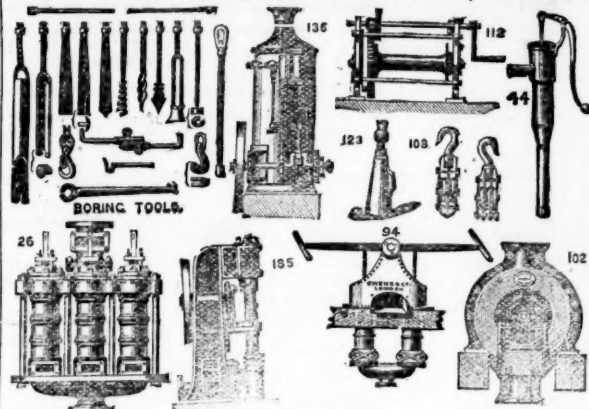


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1800	Alderley Edge, c. Cheshire*	10 0 0	—	—	10 8 0	0 8 0	Jan. 1869
6000	Boscawen, c. St. Just	91 8 0	220	215 230	580 8 0	0 2 0	Apr. 1870
200	Botalack, c. St. Just	2 10 0	—	—	2 10 0	0 2 0	Aug. 1870
20000	Bronfloyd, c. Cardigan*	4 0 0	—	—	0 9 0	0 2 0	May 1870
5094	Bwch Consols, c. Cardigan*	2 10 0	—	—	0 12 6	0 3 6	Sept. 1870
6400	Cashwell, c. Cumberland*	10 8 0	—	—	16 15 0	0 10 0	Aug. 1869
916	Cargoll, c. Newlyn	0 7 8	—	—	0 10 0	0 6 0	Nov. 1868
128	Chanticleer, c. Flint	19 14 9	10 1/2	16 1/2	4 13 0	0 10 0	Oct. 1870
2457	Cook's Kitchen, c. Illogan*	7 10 0	—	—	32 8 0	0 5 0	Oct. 1870
128	Cwm Erfin, c. Cardiganshire*	60 0 0	—	—	387 10 0	0 2 0	Sept. 1869
380	Darwen Mines, c. Durham	300 0 0	—	—	177 0 0	0 10 0	July 1868
1024	Devon Gt. Consols, c. Tavistock†	1 0 0	100	95 105	1145 0 0	0 4 0	May 1870
656	Ding Dong, c. Gwilt	49 14 6	19	18 19	7 10 0	0 15 0	Aug. 1870
1432	Dolcoath, c. c. Camborne	32 4 6	130	125 130	248 2 6	0 3 0	Oct. 1870
12800	Drake Wallis, c. Calstock†	2 10 0	1 1/2	1 1/2	1 3 0	0 1 0	July 1870
6144	East Caradon, c. St. Cleer†	2 14 6	4 1/2	4 1/2	14 11 6	0 2 0	July 1867
300	East Darren, c. Cardiganshire	82 0 0	—	—	188 10 0	0 2 0	Sept. 1870
6400	East Pool, c. c. Pool, Illogan	0 9 0	—	—	10 12 3	0 4 0	Sept. 1870
1906	East Wheal Lovell, c. Wendron	2 0 0	28 1/2	24 25	12 16 0	0 2 0	July 1870
2800	Fordale, c. St. Just	25 0 0	—	—	76 15 0	0 1 0	Oct. 1870
3500	Frank Mills, c. Christow	3 18 6	—	—	4 8 0	0 2 6	Aug. 1870
3950	Gawton, c. Tavistock	3 10 6	—	—	0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, c. Isle of Man*	4 0 0	18	18 19	13 1 0	0 8 0	Sept. 1870
3000	Great Northern Manganese*	5 0 0	—	—	—	—	Feb. 1869
3908	Great Wheal Vor, c. c. Helston†	40 0 0	7	7 7 1/2	15 12 0	0 3 6	June 1870
10240	Gunnislake (Clitters), c. c.	4 10 0	2 1/2	—	0 1 0	0 1 0	July 1870
1024	Herodfoot, c. c. near Liskeard†	8 10 0	45	44 46	54 0 0	1 10 0	Oct. 1870
10000	Holmbush and Kelly Bray, c. c.	1 0 0	—	—	0 3 0	0 1 0	Nov. 1869
165	Killalee, c. c. Tipperary	10 8 1	—	—	0 7 0	0 7 0	Mar. 1870
400	Lisburne, c. Cardiganshire	18 15 0	—	—	1101 0 0	0 2 0	Aug. 1869
3000	Maes-y-Safn, c. c. Flint*	20 0 0	—	—	4 0 0	0 2 0	Oct. 1868
9000	Marke Valley, c. c. Caradon	4 10 6	0 1/2	0 1/2	6 10 0	0 4 0	Oct. 1870
1800	Minera Mining Co. [L.] Wrexham*	25 0 0	—	—	278 3 3	0 5 0	Aug. 1870
30000	Minning Co. of Ireland, c. c.	7 0 0	8 1/2	8 1/2	0 4 6 1/2	0 2 1	July 1870
4400	New Pembroke, c. c. Par Station	5 0 0	—	—	11 1/2	0 11 1/2	Aug. 1870
2000	North Levant, c. c. St. Just	3 11 1/2	1 1/2	1 1/2	0 2 6	0 2 6	June 1870
6610	North Whan United, c. c. Illogan†	86 0 0	65	60 65	10 0 0	0 10 0	July 1870
256	Pendarves United, c. c.	3 0 0	—	—	1 13 6	0 4 0	Oct. 1870
6000	Penhalls, c. St. Agnes	3 0 0	—	—	456 10 0	0 7 0	May 1870
500	Phoenix, c. c. Llanthorne	20 0 0	—	—	1 10 0	0 10 0	Oct. 1870
2000	Poldice, c. c. Gwennap	10 0 0	—	—	0 10 0	0 10 0	Nov. 1869
12800	Prince of Wales, c. Calstock	0 12 6	—	—	99 12 6	1 0 0	Sept. 1870
15000	Queen, c. c. Calstock*	0 10 0	—	—	0 11 0	0 1 0	Sept. 1870
5869	Rosewall Hill & Ransom, c. c.	1 5 0	250	230 250	651 10 0	0 4 0	Sept. 1870
412	South Caradon, c. c. St. Cleer†	3 6 6	—	—	1 0 0	0 2 6	Nov. 1869
6000	South Darren, c. Cardigan*	24 10 10	9	8 9	3 0 0	0 10 0	June 1870
497	So. Wh. Frances, c. c. Illogan	18 18 9	20	30 32	374 13 6	1 0 0	Mar. 1868
242	Spearhead, c. c. St. Just	26 17 9	19	19 21	13 15 0	0 1 0	June 1870
940	St. Ives Consols, c. St. Ives†	10 15 0	—	—	0 10 0	0 10 0	May 1869
8771	St. Just Amalgamated, c. c.	3 10 6	—	—	0 2 6	0 2 6	Feb. 1868
508	Summer Hill, c. c. Mold	3 18 6	10	14 15	2 8 0	0 2 0	Aug. 1870
12000	Tankerville, c. c. Salop*	6 0 0	42	44 45	25 18 6	1 10 0	Sept. 1870
2000	Tinicroft, c. c. Pool, Illogan†	11 10 0	23	22 23	11 12 0	0 15 0	Aug. 1870
3000	Trumpton Consols, c. c.	4 5 0	60	67 1/2	2 15 0	0 15 0	Sept. 1870
12000	Van, c. c. Llanidloes*	10 0 0	54 1/2	53 55	45 7 6	0 2 0	Aug. 1870
3000	Wh. Chiverton, c. c. Perranabuloe†	10 0 0	32	31 33	4 10 0	1 10 0	Oct. 1869
512	West Wheal Frances, c. c. Illogan	47 0 0	125	120 125	666 10 0	1 10 0	Oct. 1870
400	Wheal Seton, c. c. Camborne†	5 2 6	75	70 75	632 10 0	1 0 0	June 1870
512	Wheal Jane, c. c. Kea	10 15 0	60	58 60	32 0 0	1 10 0	July 1870
4295	Wheal Killy, c. c. St. Agnes	5 4 0	12	10 12	12 12 6	0 10 0	July 1870
1024	Wheal Killy, c. c. St. Agnes	13 17 6	6	6 7	78 5 0	0 10 0	Aug. 1870
1024	Wheal Mary Ann, c. c. Menheniot†	8 0 0	9	8 9	71 7 6	0 10 0	Sept. 1870
1000	Wh. Mary Hutton, c. c. Pympt.	2 12 6	—	—	0 10 0	0 5 0	Aug. 1869
80	Wheal Owies, c. c. St. Just†	70 0 0	—	—	464 13 0	12 10 0	Aug. 1870
396	Wheal Seton, c. c. Camborne	60 0 0	37	35 40	254 15 0	2 0 0	Feb. 1869
17000	Wicklow, c. c. Wicklow	2 10 0	8 1/2	8 1/2	50 3 0	0 5 0	Sept. 1869

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total div.	Per share.	Last paid.
35000	Alamillos, c. Spain*	2 0 0	1 1/2	1 1/2	0 13 0	0 2 6	Oct. 1870
20000	Australian, c. South Australia†	7 7 6	—	—	0 1 6	0 6 0	Aug. 1868
15000	Cape Copper Mining*	7 0 0	15	14 15 1/2	5 17 6	0 10 0	May 1870
30000	Central American Association*	0 10 0	—	—	0 6 0	0 1 0	July 1869
10000	Copago Mining Co. [L.] Chile†	16 10 0	3	3 3	0 4 0	0 4 0	April 1869
76162	Don Pedro North del Rey†	0 14 0	3 1/2	2 1/2	2 3 0	0 4 0	Mar. 1870
70000	Enliah and Australian, c. c.	2 10 0	—	—	—	—	Feb. 1869
25000	Fortuna, c. Spain*	2 0 0	2 1/2	2 1/2	2 2 0	0 2 0	Oct. 1870
10000	Gonca, c. c. Sardinia*	1 0 0	3 1/2	3 1/2	10 percent.	—	Aug. 1868
15000	Kapunda Mining Co. [L.] Austral†	1 0 0	3 1/2	3 1/2	0 1 10	0 6 0	Nov. 1868
6000	Linares, c. Spain*	3 0 0	3 1/2	3 1/2	12 13 4	0 5 0	Oct. 1870
50000	Panicle, c. Chile†	4 0 0	2 1/2	2 1/2	10 percent.	—	Yearly.
10000	Pontgibaud, c. c. France†	20 0 0	17	16 17	7 1 8	1 16 6	Nov. 1869
100000	Port Phillip, c. c. Clunes†	1 0 0	1 1/2	1 1/2	1 6 0	0 1 6	Jan. 1870
10000	Scottish Australian Min. Co. [L.]	1 0 0	3 1/2	3 1/2	8 percent.	—	Apr. 1870
11000	St. John del Rey, Brazil†	15 0 0	34	33 35	81 10 0	4 8 0	Dec. 1867
15000	Sweetland Creek, c. c. California†	4 0 0	3	2 3	0 4 0	0 4 0	July 1869
50000	Victoria (London) [25000 £1 pd., 25000 12s. 6d. pd.]	0 0 0	—	—	0 9 7	0 9 7	July 1868

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. doms.	Last paid.
10000	Almada and Tirlito Consolidated, s, Mexico†	1 0 0	1	1 1/2	—
50000	Anglo-Argentine, g, s, Argentine Republic†	1 0 0	—	—	—
20000	Anglo-Australian, g, Victoria* (25 10s. shares)	0 11 0	—	—	—
100000	Anglo-Brazilian, g†	1 7 6	—	—	—
12500	Anglo-Italian, g†	2 10 0	—	—	—
20000	Arivaca, g, s, Arizona* (20 shares)	2 10 0	—	1 1/2	—
50000	Australian United, s, Victoria†	0 15 0	—	—	—
20000	Bellavista, s, Brazil* (25 shares)	0 15 0	—	—	—
50000	Braganza, g, Brazil†	0 15 0	—	—	—
20000	Capula, s, Mexico†	2 0 0	1 1/2	1 2	—
30000	Chontales, g, s, Nicaragua†	5 0 0	—	—	—
21000	Colorado Terrible, s, g, Colorado*	5 0 0	—	—	—
100000	Culaba, g, Minas Geraes, Brazil	0 10 0	—	1/2	—
20000	Eberhardt and Aurora, s, Nevada*	0 10 0	—	—	—
100000	Elcipe, g, California* (25 shares)	0 15 0	—	1/2	—
15000	El Chico Silver Mining and Reduction Company*	5 0 0	—	—	—
40000	Fortune Copper Mining Co. of Western Australia*	2 0 0	—	—	—
40000	Freino and Bonifacio, s, Rio Grande*	1 18 0	—	1 1/2	—
150000	General Brazilian, s, (25 shares)	0 17 0	—	1 1/2	—
250000	Guerrero, g, Mexico (total cap., 50,000 shares of £1)	0 10 0	—	—	—
100000	Imperial Ottoman, s, I, Turkey*	1 0 0	—	—	—
50000	Javali, g, Nicaragua†	2 0 0	—	—	—
7927	Lusitanian (Portugal)† (25 shares)	5 0 0	—	1 1/2	—
51000	New Quebrada, c, Venezuela†	5 0 0	—	—	—
50000	New Rosario, g, Mexico	1 0 0	—	—	—
15000	Pacific, g, s, Nevada and California* (and reduced)	7 0 0	1 1/2	1 1/2	1 1/2
80000	Pestarena United, g, Italy†	0 12 0	—	1 1/2	—
100000	Rosa Grande, g, Brazil† (25 shares)	0 6 0	—	1 1/2	—
50000	Sao Vicente, Brazil†	2 0 0	—	—	—
11000	Sierra Battos, g, Mexico†	0 6 0	—	—	—
50000	South Aurora, s, White Pine, Nevada*	5 0 0	—	—	—
100000	Taquaril, g, Brazil* (25 shares)	0 13 0	—	2 1/2	2 1/2
40000	Tuolumne, g, California*	2 0 0	—	—	—
43174	United Mexican, s, Mexico†	28 5 2	3	2 3	—
30000	Val Antigorla, g, Italy*	1 12 6	—	—	—
50000	Worthing, c, South Australia†	1 0 0	—	—	—
75000	Yorke Peninsula, c, South Australia	1 0 0	—	1 1/2	1 1/2
45000	Yudanamatuna, c, South Australia†	3 0 0	—	1 1/2	1 1/2